40/pt. 190-299/989

code of federal regulations

Protection of Environment

40

PARTS 190 TO 299
Revised as of July 1, 1989

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PARTS 190 to 299

Revised as of July 1, 1989

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AS OF JULY 1, 1989

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Cite this Code: **CFR**

To cite the regulations in this volume use title, part and section number. Thus, 40 CFR 190.01 *refers to Title 40, Part 190, section 01.*

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Title 1 through Title 16 .... as of January 1
Title 17 through Title 27 .... as of April 1
Title 28 through Title 41 .... as of July 1
Title 42 through Title 50 .... as of October 1

The appropriate revision date is printed on the cover of each volume.

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MARTHA L. GIRARD,
Acting Director,
Office of the Federal Register.

July 1, 1989.

THIS TITLE

Title 40—**Protection of Environment** is composed of fourteen volumes. The parts in these volumes are arranged in the following order: Parts 1-51, Part 52, Parts 53-60, Parts 61-80, Parts 81-85, Parts 86-99, Parts 100-149, Parts 150-189, Parts 190-299, Parts 300-399, Parts 400-424, Parts 425-699, Parts 700-789 and Part 790 to End. A derivation table appears in the volume containing Parts 1-51. The contents of these volumes represent all current regulations codified under this title of the CFR as of July 1, 1989.

Chapter I—Environmental Protection Agency appears in all fourteen volumes. A Pesticide Tolerance Commodity/Chemical Index appears in Parts 150-189. A Toxic Substances Chemical—CAS Number Index appears in Parts 700-789 and Part 790 to End. Distribution Tables appear in the volumes containing Parts 100-149 and Parts 190-299. Redesignation Tables appear in the volumes containing Parts 1-51, Parts 81-85, Parts 86-99, Parts 150-189, Parts 700-789 and Part 790 to End. Regulations issued by the Council on Environmental Quality appear in the volume containing Part 790 to End.

For this volume, Jimmy L. Wickliffe was Chief Editor. The Code of Federal Regulations publication program is under the direction of Richard L. Claypoole, assisted by Ruth C. Pontius.

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Title 40—Protection of Environment

(This book contains Parts 190 to 299)

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SUBCHAPTER F—RADIATION PROTECTION PROGRAMS

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190.12 Effective date.

AUTHORITY: Atomic Energy Act of 1954, as amended; Reorganization Plan No. 3, of 1970.

SOURCE: 42 FR 2860, Jan. 13, 1977, unless otherwise noted.

Subpart A—General Provisions

§ 190.01 Applicability.

The provisions of this part apply to radiation doses received by members of the public in the general environment and to radioactive materials introduced into the general environment as the result of operations which are part of a nuclear fuel cycle.

§ 190.02 Definitions.

(a) "Nuclear fuel cycle" means the operations defined to be associated with the production of electrical power for public use by any fuel cycle through utilization of nuclear energy.

(b) "Uranium fuel cycle" means the operations of milling of uranium ore, chemical conversion of uranium, isotopic enrichment of uranium, fabrication of uranium fuel, generation of electricity by a light-water-cooled nuclear power plant using uranium fuel, and reprocessing of spent uranium fuel, to the extent that these directly support the production of electrical power for public use utilizing nuclear energy, but excludes mining operations, operations at waste disposal sites, transportation of any radioactive material in support of these operations, and the reuse of recovered non-uranium special nuclear and by-product materials from the cycle.

(c) "General environment" means the total terrestrial, atmospheric and aquatic environments outside sites upon which any operation which is part of a nuclear fuel cycle is conducted.

(d) "Site" means the area contained within the boundary of a location under the control of persons possessing or using radioactive material on which is conducted one or more operations covered by this part.

(e) "Radiation" means any or all of the following: Alpha, beta, gamma, or X-rays; neutrons; and high-energy electrons, protons, or other atomic particles; but not sound or radio waves, nor visible, infrared, or ultraviolet light.

(f) "Radioactive material" means any material which spontaneously emits radiation.

(g) "Curie" (Ci) means that quantity of radioactive material producing 37 billion nuclear transformations per second. (One millicurie (mCi) = 0.001 Ci.)

(h) "Dose equivalent" means the product of absorbed dose and appropriate factors to account for differences in biological effectiveness due to the quality of radiation and its spatial distribution in the body. The unit of dose equivalent is the "rem." (One millirem (mrem) = 0.001 rem.)

(i) "Organ" means any human organ exclusive of the dermis, the epidermis, or the cornea.

(j) "Gigawatt-year" refers to the quantity of electrical energy produced at the busbar of a generating station. A gigawatt is equal to one billion watts. A gigawatt-year is equivalent to the amount of energy output represented by an average electric power level of one gigawatt sustained for one year.

(k) "Member of the public" means any individual that can receive a radiation dose in the general environment, whether he may or may not also be exposed to radiation in an occupation associated with a nuclear fuel cycle. However, an individual is not considered a member of the public during any period in which he is engaged in carrying out any operation which is part of a nuclear fuel cycle.

(l) "Regulatory agency" means the government agency responsible for issuing regulations governing the use of sources of radiation or radioactive materials or emissions therefrom and carrying out inspection and enforcement activities to assure compliance with such regulations.

Subpart B—Environmental Standards for the Uranium Fuel Cycle

§ 190.10 Standards for normal operations.

Operations covered by this subpart shall be conducted in such a manner as to provide reasonable assurance that:

(a) The annual dose equivalent does not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public as the result of exposures to planned discharges of radioactive materials, radon and its daughters excepted, to the general environment from uranium fuel cycle operations and to radiation from these operations.

(b) The total quantity of radioactive materials entering the general environment from the entire uranium fuel cycle, per gigawatt-year of electrical energy produced by the fuel cycle, contains less than 50,000 curies of krypton-85, 5 millicuries of iodine-129, and 0.5 millicuries combined of plutonium-239 and other alpha-emitting transuranic radionuclides with half-lives greater than one year.

§ 190.11 Variances for unusual operations.

The standards specified in § 190.10 may be exceeded if:

(a) The regulatory agency has granted a variance based upon its determination that a temporary and unusual operating condition exists and continued operation is in the public interest, and

(b) Information is promptly made a matter of public record delineating the nature of unusual operating conditions, the degree to which this operation is expected to result in levels in excess of the standards, the basis of the variance, and the schedule for achieving conformance with the standards.

§ 190.12 Effective date.

(a) The standards in § 190.10(a) shall be effective December 1, 1979, except that for doses arising from operations associated with the milling of uranium ore the effective date shall be December 1, 1980.

(b) The standards in § 190.10(b) shall be effective December 1, 1979, except that the standards for krypton-85 and iodine-129 shall be effective January 1, 1983, for any such radioactive materials generated by the fission process after these dates.

PART 191—ENVIRONMENTAL RADIATION PROTECTION STANDARDS FOR MANAGEMENT AND DISPOSAL OF SPENT NUCLEAR FUEL, HIGH-LEVEL AND TRANSURANIC RADIOACTIVE WASTES

Subpart A—Environmental Standards for Management and Storage

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APPENDIX B—GUIDANCE FOR IMPLEMENTATION OF SUBPART B

AUTHORITY: The Atomic Energy Act of 1954, as amended; Reorganization Plan No. 3 of 1970; and the Nuclear Waste Policy Act of 1982.

SOURCE: 50 FR 38084, Sept. 19, 1985 unless otherwise noted.

Subpart A—Environmental Standards for Management and Storage

§ 191.01 Applicability.

This subpart applies to:

(a) Radiation doses received by members of the public as a result of the management (except for transportation) and storage of spent nuclear fuel or high-level or transuranic radioactive wastes at any facility regulated by the Nuclear Regulatory Commission or by Agreement States, to the extent that such management and storage operations are not subject to the provisions of Part 190 of Title 40; and

(b) Radiation doses received by members of the public as a result of the management and storage of spent nuclear fuel or high-level or transuranic wastes at any disposal facility that is operated by the Department of Energy and that is not regulated by the Commission or by Agreement States.

§ 191.02 Definitions.

Unless otherwise indicated in this subpart, all terms shall have the same meaning as in Subpart A of Part 190.

(a) "Agency" means the Environmental Protection Agency.

(b) "Administrator" means the Administrator of the Environmental Protection Agency.

(c) "Commission" means the Nuclear Regulatory Commission.

(d) "Department" means the Department of Energy.

(e) "NWPA" means the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425).

(f) "Agreement State" means any State with which the Commission or the Atomic Energy Commission has entered into an effective agreement under subsection 274b of the Atomic Energy Act of 1954, as amended (68 Stat. 919).

(g) "Spent nuclear fuel" means fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.

(h) "High-level radioactive waste," as used in this part, means high-level radioactive waste as defined in the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425).

(i) "Transuranic radioactive waste," as used in this part, means waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes, with half-lives greater than twenty years, per gram of waste, except for: (1) High-level radioactive wastes; (2) wastes that the Department has determined, with the concurrence of the Administrator, do not need the degree of isolation required by this part; or (3) wastes that the Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.

(j) "Radioactive waste," as used in this part, means the high-level and transuranic radioactive waste covered by this part.

(k) "Storage" means retention of spent nuclear fuel or radioactive wastes with the intent and capability to readily retrieve such fuel or waste for subsequent use, processing, or disposal.

(l) "Disposal" means permanent isolation of spent nuclear fuel or radioactive waste from the accessible environment with no intent of recovery, whether or not such isolation permits the recovery of such fuel or waste. For example, disposal of waste in a mined geologic repository occurs when all of the shafts to the repository are backfilled and sealed.

(m) "Management" means any activity, operation, or process (except for transportation) conducted to prepare spent nuclear fuel or radioactive waste for storage or disposal, or the activities associated with placing such fuel or waste in a disposal system.

(n) "Site" means an area contained within the boundary of a location under the effective control of persons possessing or using spent nuclear fuel or radioactive waste that are involved in any activity, operation, or process covered by this subpart.

(o) "General environment" means the total terrestrial, atmospheric, and aquatic environments outside sites within which any activity, operation, or process associated with the management and storage of spent nuclear fuel or radioactive waste is conducted.

(p) "Member of the public" means any individual except during the time when that individual is a worker engaged in any activity, operation, or process that is covered by the Atomic Energy Act of 1954, as amended.

(q) "Critical organ" means the most exposed human organ or tissue exclusive of the integumentary system (skin) and the cornea.

§ 191.03 Standards.

(a) Management and storage of spent nuclear fuel or high-level or transuranic radioactive wastes at all facilities regulated by the Commission or by Agreement States shall be conducted in such a manner as to provide reasonable assurance that the combined annual dose equivalent to any member of the public in the general environment resulting from: (1) Discharges of radioactive material and direct radiation from such management and storage and (2) all operations covered by Part 190; shall not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other critical organ.

(b) Management and storage of spent nuclear fuel or high-level or transuranic radioactive wastes at all facilities for the disposal of such fuel or waste that are operated by the Department and that are not regulated by the Commission or Agreement States shall be conducted in such a manner as to provide reasonable assurance that the combined annual dose equivalent to any member of the public in the general environment resulting from discharges of radioactive material and direct radiation from such management and storage shall not exceed 25 millirems to the whole body and 75 millirems to any critical organ.

§ 191.04 Alternative standards.

(a) The Administrator may issue alternative standards from those standards established in § 191.03(b) for waste management and storage activities at facilities that are not regulated by the Commission or Agreement States if, upon review of an application for such alternative standards:

(1) The Administrator determines that such alternative standards will prevent any member of the public from receiving a continuous exposure of more than 100 millirems per year dose equivalent and an infrequent exposure of more than 500 millirems dose equivalent in a year from all sources, excluding natural background and medical procedures; and

(2) The Administrator promptly makes a matter of public record the degree to which continued operation of the facility is expected to result in levels in excess of the standards specified in § 191.03(b).

(b) An application for alternative standards shall be submitted as soon as possible after the Department determines that continued operation of a facility will exceed the levels specified in § 191.03(b) and shall include all information necessary for the Administrator to make the determinations called for in § 191.04(a).

(c) Requests for alternative standards shall be submitted to the Administrator, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

§ 191.05 Effective date.

The standards in this subpart shall be effective on November 18, 1985.

Subpart B—Environmental Standards for Disposal

§ 191.11 Applicability.

(a) This subpart applies to:

(1) Radioactive materials released into the accessible environment as a result of the disposal of spent nuclear fuel or high-level or transuranic radioactive wastes;

(2) Radiation doses received by members of the public as a result of such disposal; and

(3) Radioactive contamination of certain sources of ground water in the vicinity of disposal systems for such fuel or wastes.

(b) However, this subpart does not apply to disposal directly into the oceans or ocean sediments. This subpart also does not apply to wastes disposed of before the effective date of this rule.

§ 191.12 Definitions.

Unless otherwise indicated in this subpart, all terms shall have the same meaning as in Subpart A of this part.

(a) "Disposal system" means any combination of engineered and natural barriers that isolate spent nuclear fuel or radioactive waste after disposal.

(b) "Waste," as used in this subpart, means any spent nuclear fuel or radioactive waste isolated in a disposal system.

(c) "Waste form" means the materials comprising the radioactive components of waste and any encapsulating or stabilizing matrix.

(d) "Barrier" means any material or structure that prevents or substantially delays movement of water or radionuclides toward the accessible environment. For example, a barrier may be a geologic structure, a canister, a waste form with physical and chemical characteristics that significantly decrease the mobility of radionuclides, or a material placed over and around waste, provided that the material or structure substantially delays movement of water or radionuclides.

(e) "Passive institutional control" means: (1) Permanent markers placed at a disposal site, (2) public records and archives, (3) government ownership and regulations regarding land or resource use, and (4) other methods of preserving knowledge about the location, design, and contents of a disposal system.

(f) "Active institutional control" means: (1) Controlling access to a disposal site by any means other than passive institutional controls; (2) performing maintenance operations or remedial actions at a site, (3) controlling or cleaning up releases from a site, or (4) monitoring parameters related to disposal system performance.

(g) "Controlled area" means: (1) A surface location, to be identified by passive institutional controls, that encompasses no more than 100 square kilometers and extends horizontally no more than five kilometers in any direction from the outer boundary of the original location of the radioactive wastes in a disposal system; and (2) the subsurface underlying such a surface location.

(h) "Ground water" means water below the land surface in a zone of saturation.

(i) "Aquifer" means an underground geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(j) "Lithosphere" means the solid part of the Earth below the surface, including any ground water contained within it.

(k) "Accessible environment" means: (1) The atmosphere; (2) land surfaces; (3) surface waters; (4) oceans; and (5) all of the lithosphere that is beyond the controlled area.

(l) "Transmissivity" means the hydraulic conductivity integrated over the saturated thickness of an underground formation. The transmissivity of a series of formations is the sum of the individual transmissivities of each formation comprising the series.

(m) "Community water system" means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

(n) "Significant source of ground water," as used in this part, means: (1) An aquifer that: (i) Is saturated with water having less than 10,000 milligrams per liter of total dissolved solids; (ii) is within 2,500 feet of the land surface; (iii) has a transmissivity greater than 200 gallons per day per foot, *Provided*, That any formation or part of a formation included within the source of ground water has a hydraulic conductivity greater than 2 gallons per day per square foot; and (iv) is capable of continuously yielding at least 10,000 gallons per day to a pumped or flowing well for a period of at least a year; or (2) an aquifer that provides the primary source of water for a community water system as of the effective date of this subpart.

(o) "Special source of ground water," as used in this part, means those Class I ground waters identified in accordance with the Agency's Ground-Water Protection Strategy published in August 1984 that: (1) Are within the controlled area encompassing a disposal system or are less than five kilometers beyond the controlled area; (2) are supplying drinking water for thousands of persons as of the date that the Department chooses a location within that area for detailed characterization as a potential site for a disposal system (e.g., in accordance with section 112(b)(1)(B) of the NWPA); and (3) are irreplaceable in that no reasonable alternative source of drinking water is available to that population.

(p) "Undisturbed performance" means the predicted behavior of a disposal system, including consideration of the uncertainties in predicted behavior, if the disposal system is not disrupted by human intrusion or the occurrence of unlikely natural events.

(q) "Performance assessment" means an analysis that: (1) Identifies the processes and events that might affect the disposal system; (2) examines the effects of these processes and events on the performance of the disposal system; and (3) estimates the cumulative releases of radionuclides, considering the associated uncertainties, caused by all significant processes and events. These estimates shall be incorporated into an overall probability distribution of cumulative release to the extent practicable.

(r) "Heavy metal" means all uranium, plutonium, or thorium placed into a nuclear reactor.

(s) "Implementing agency," as used in this subpart, means the Commission for spent nuclear fuel or high-level or transuranic wastes to be disposed of in facilities licensed by the Commission in accordance with the Energy Reorganization Act of 1974 and the Nuclear Waste Policy Act of 1982, and it means the Department for all other radioactive wastes covered by this part.

§ 191.13 Containment requirements.

(a) Disposal systems for spent nuclear fuel or high-level or transuranic radioactive wastes shall be designed to provide a reasonable expectation, based upon performance assessments, that the cumulative releases of radionuclides to the accessible environment for 10,000 years after disposal from all significant processes and events that may affect the disposal system shall:

(1) Have a likelihood of less than one chance in 10 of exceeding the quantities calculated according to Table 1 (Appendix A); and

(2) Have a likelihood of less than one chance in 1,000 of exceeding ten times the quantities calculated according to Table 1 (Appendix A).

(b) Performance assessments need not provide complete assurance that the requirements of § 191.13(a) will be met. Because of the long time period involved and the nature of the events and processes of interest, there will inevitably be substantial uncertainties in projecting disposal system performance. Proof of the future performance of a disposal system is not to be had in the ordinary sense of the word in situations that deal with much shorter time frames. Instead, what is required is a reasonable expectation, on the basis of the record before the implementing agency, that compliance with § 191.13 (a) will be achieved.

§ 191.14 Assurance requirements.

To provide the confidence needed for long-term compliance with the requirements of § 191.13, disposal of spent nuclear fuel or high-level or transuranic wastes shall be conducted in accordance with the following provisions, except that these provisions do not apply to facilities regulated by the Commission (see 10 CFR Part 60 for comparable provisions applicable to facilities regulated by the Commission):

(a) Active institutional controls over disposal sites should be maintained for as long a period of time as is practicable after disposal; however, performance assessments that assess isolation of the wastes from the accessible environment shall not consider any contributions from active institutional controls for more than 100 years after disposal.

(b) Disposal systems shall be monitored after disposal to detect substantial and detrimental deviations from expected performance. This monitoring shall be done with techniques that do not jeopardize the isolation of the wastes and shall be conducted until there are no significant concerns to be addressed by further monitoring.

(c) Disposal sites shall be designated by the most permanent markers, records, and other passive institutional controls practicable to indicate the dangers of the wastes and their location.

(d) Disposal systems shall use different types of barriers to isolate the wastes from the accessible environment. Both engineered and natural barriers shall be included.

(e) Places where there has been mining for resources, or where there is a reasonable expectation of exploration for scarce or easily accessible resources, or where there is a significant concentration of any material that is not widely available from other sources, should be avoided in selecting disposal sites. Resources to be considered shall include minerals, petroleum or natural gas, valuable geologic formations, and ground waters that are either irreplaceable because there is no reasonable alternative source of drinking water available for substantial populations or that are vital to the preservation of unique and sensitive ecosystems. Such places shall not be used for disposal of the wastes covered by this part unless the favorable characteristics of such places compensate for their greater likelihood of being disturbed in the future.

(f) Disposal systems shall be selected so that removal of most of the wastes is not precluded for a reasonable period of time after disposal.

§ 191.15 Individual protection requirements.

Disposal systems for spent nuclear fuel or high-level or transuranic radioactive wastes shall be designed to provide a reasonable expectation that, for 1,000 years after disposal, undisturbed performance of the disposal system shall not cause the annual dose equivalent from the disposal system to any member of the public in the accessible environment to exceed 25 millirems to the whole body or 75 millirems to any critical organ. All potential pathways (associated with undisturbed performance) from the disposal system to people shall be considered, including the assumption that individuals consume 2 liters per day of drinking water from any significant source of ground water outside of the controlled area.

§ 191.16 Ground water protection requirements.

(a) Disposal systems for spent nuclear fuel or high-level or transuranic radioactive wastes shall be designed to provide a reasonable expectation that, for 1,000 years after disposal, undisturbed performance of the disposal system shall not cause the radionuclide concentrations averaged over any year in water withdrawn from any portion of a special source of ground water to exceed:

(1) 5 picocuries per liter of radium-226 and radium-228;

(2) 15 picocuries per liter of alpha-emitting radionuclides (including radium-226 and radium-228 but excluding radon); or

(3) The combined concentrations of radionuclides that emit either beta or gamma radiation that would produce an annual dose equivalent to the total body or any internal organ greater than 4 millirems per year if an individual consumed 2 liters per day of drinking water from such a source of ground water.

(b) If any of the average annual radionuclide concentrations existing in a special source of ground water before construction of the disposal system already exceed the limits in § 191.16(a), the disposal system shall be designed to provide a reasonable expectation that, for 1,000 years after disposal, undisturbed performance of the disposal system shall not increase the existing average annual radionuclide concentrations in water withdrawn from that special source of ground water by more than the limits established in § 191.16(a).

§ 191.17 Alternative provisions for disposal.

The Administrator may, by rule, substitute for any of the provisions of Subpart B alternative provisions chosen after:

(a) The alternative provisions have been proposed for public comment in the FEDERAL REGISTER together with information describing the costs, risks, and benefits of disposal in accordance with the alternative provisions and the reasons why compliance with the existing provisions of Subpart B appears inappropriate;

(b) A public comment period of at least 90 days has been completed, during which an opportunity for public hearings in affected areas of the country has been provided; and

(c) The public comments received have been fully considered in developing the final version of such alternative provisions.

§ 191.18 Effective date.

The standards in this subpart shall be effective on November 18, 1985.

[50 FR 38084, Sept. 19, 1985; 50 FR 40003, Oct. 1, 1985]

APPENDIX A—TABLE FOR SUBPART B

TABLE 1—RELEASE LIMITS FOR CONTAINMENT REQUIREMENTS

[Cumulative releases to the accessible environment for 10,000 years after disposal]

Radionuclide	Release limit per 1,000 MTHM or other unit of waste (see notes) (curies)
Americium-241 or -243	100
Carbon-14	100
Cesium-135 or -137	1,000
Iodine-129	100
Neptunium-237	100
Plutonium-238, -239, -240, or -242	100
Radium-226	100
Strontium-90	1,000
Technetium-99	10,000
Thorium-230 or -232	10
Tin-126	1,000
Uranium-233, -234, -235, -236, or -238	100
Any other alpha-emitting radionuclide with a half-life greater than 20 years	100
Any other radionuclide with a half-life greater than 20 years that does not emit alpha particles	1,000

APPLICATION OF TABLE 1

NOTE 1: *Units of Waste.* The Release Limits in Table 1 apply to the amount of wastes in any one of the following:

(a) An amount of spent nuclear fuel containing 1,000 metric tons of heavy metal (MTHM) exposed to a burnup between 25,000 megawatt-days per metric ton of heavy metal (MWd/MTHM) and 40,000 MWd/MTHM;

(b) The high-level radioactive wastes generated from reprocessing each 1,000 MTHM exposed to a burnup between 25,000 MWd/MTHM and 40,000 MWd/MTHM;

(c) Each 100,000,000 curies of gamma or beta-emitting radionuclides with half-lives greater than 20 years but less than 100 years (for use as discussed in Note 5 or with materials that are identified by the Commission as high-level radioactive waste in accordance with part B of the definition of high-level waste in the NWPA);

(d) Each 1,000,000 curies of other radionuclides (i.e., gamma or beta-emitters with half-lives greater than 100 years or any alpha-emitters with half-lives greater than 20 years) (for use as discussed in Note 5 or with materials that are identified by the Commission as high-level radioactive waste in accordance with part B of the definition of high-level waste in the NWPA); or

(e) An amount of transuranic (TRU) wastes containing one million curies of alpha-emitting transuranic radionuclides with half-lives greater than 20 years.

NOTE 2: *Release Limits for Specific Disposal Systems.* To develop Release Limits for a particular disposal system, the quantities in Table 1 shall be adjusted for the amount of waste included in the disposal system compared to the various units of waste defined in Note 1. For example:

(a) If a particular disposal system contained the high-level wastes from 50,000 MTHM, the Release Limits for that system would be the quantities in Table 1 multiplied by 50 (50,000 MTHM divided by 1,000 MTHM).

(b) If a particular disposal system contained three million curies of alpha-emitting transuranic wastes, the Release Limits for that system would be the quantities in Table 1 multiplied by three (three million curies divided by one million curies).

(c) If a particular disposal system contained both the high-level wastes from 50,000 MTHM *and* 5 million curies of alpha-emitting transuranic wastes, the Release Limits for that system would be the quantities in Table 1 multiplied by 55:

$$\frac{50{,}000\text{ MTHM}}{1{,}000\text{ MTHM}}+\frac{5{,}000{,}000\text{ curies TRU}}{1{,}000{,}000\text{ curies TRU}}=55$$

NOTE 3: *Adjustments for Reactor Fuels with Different Burnup.* For disposal systems containing reactor fuels (or the high-level wastes from reactor fuels) exposed to an average burnup of less than 25,000 MWd/MTHM or greater than 40,000 MWd/MTHM, the units of waste defined in (a) and (b) of Note 1 shall be adjusted. The unit shall be multiplied by the ratio of 30,000 MWd/MTHM divided by the fuel's actual average burnup, except that a value of 5,000 MWd/MTHM may be used when the average fuel burnup is below 5,000 MWd/MTHM and a value of 100,000 MWd/MTHM shall be used when the average fuel burnup is above 100,000 MWd/MTHM. This adjusted unit of waste shall then be used in determining the Release Limits for the disposal system.

For example, if a particular disposal system contained only high-level wastes with an average burnup of 3,000 MWd/MTHM, the unit of waste for that disposal system would be:

$$1{,}000 \text{ MTHM} \times \frac{(30{,}000)}{(5{,}000)} = 6{,}000 \text{ MTHM}$$

If that disposal system contained the high-level wastes from 60,000 MTHM (with an average burnup of 3,000 MWd/MTHM), then the Release Limits for that system would be the quantities in Table 1 multiplied by ten:

$$\frac{60{,}000 \text{ MTHM}}{6{,}000 \text{ MTHM}} = 10$$

which is the same as:

$$\frac{60{,}000 \text{ MTHM}}{1{,}000 \text{ MTHM}} \times \frac{(5{,}000 \text{ MWd/MTHM})}{(30{,}000 \text{ MWd/MTHM})} = 10$$

NOTE 4: *Treatment of Fractionated High-Level Wastes.* In some cases, a high-level waste stream from reprocessing spent nuclear fuel may have been (or will be) separated into two or more high-level waste components destined for different disposal systems. In such cases, the implementing agency may allocate the Release Limit multiplier (based upon the original MTHM and the average fuel burnup of the high-level waste stream) among the various disposal systems as it chooses, provided that the total Release Limit multiplier used for that waste stream at all of its disposal systems may not exceed the Release Limit multiplier that would be used if the entire waste stream were disposed of in one disposal system.

NOTE 5: *Treatment of Wastes with Poorly Known Burnups or Original MTHM.* In some cases, the records associated with particular high-level waste streams may not be adequate to accurately determine the original metric tons of heavy metal in the reactor fuel that created the waste, or to determine the average burnup that the fuel was exposed to. If the uncertainties are such that the original amount of heavy metal or the average fuel burnup for particular high-level waste streams cannot be quantified, the units of waste derived from (a) and (b) of Note 1 shall no longer be used. Instead, the units of waste defined in (c) and (d) of Note 1 shall be used for such high-level waste streams. If the uncertainties in such information allow a range of values to be associated with the original amount of heavy metal or the average fuel burnup, then the calculations described in previous Notes will be conducted using the values that result in the smallest Release Limits, except that the Release Limits need not be smaller than those that would be calculated using the units of waste defined in (c) and (d) of Note 1.

NOTE 6: *Uses of Release Limits to Determine Compliance with § 191.13* Once release limits for a particular disposal system have been determined in accordance with Notes 1 through 5, these release limits shall be used to determine compliance with the requirements of § 191.13 as follows. In cases where a mixture of radionuclides is projected to be released to the accessible environment, the limiting values shall be determined as follows: For each radionuclide in the mixture, determine the ratio between the cumulative release quantity projected over 10,000 years and the limit for that radionuclide as determined from Table 1 and Notes 1 through 5. The sum of such ratios for all the radionuclides in the mixture may not exceed one with regard to § 191.13(a)(1) and may not exceed ten with regard to § 191.13(a)(2).

For example, if radionuclides A, B, and C are projected to be released in amounts Q_a, Q_b, and Q_c, and if the applicable Release Limits are RL_a, RL_b, and RL_c, then the cumulative releases over 10,000 years shall be limited so that the following relationship exists:

$$\frac{Q_a}{RL_a} + \frac{Q_b}{RL_b} + \frac{Q_c}{RL_c} < 1$$

Appendix B—Guidance for Implementation of Subpart B

[Note: The supplemental information in this appendix is not an integral part of 40 CFR Part 191. Therefore, the implementing agencies are not bound to follow this guidance. However, it is included because it describes the Agency's assumptions regarding the implementation of Subpart B. This appendix will appear in the Code of Federal Regulations.]

The Agency believes that the implementing agencies must determine compliance with §§ 191.13, 191.15, and 191.16 of Subpart B by evaluating long-term predictions of disposal system performance. Determining compliance with § 191.13 will also involve predicting the likelihood of events and processes that may disturb the disposal system. In making these various predictions, it will be appropriate for the implementing agencies to make use of rather complex computational models, analytical theories, and prevalent expert judgment relevant to the numerical predictions. Substantial uncertainties are likely to be encountered in making these predictions. In fact, sole reliance on these numerical predictions to determine compliance may not be appropriate; the implementing agencies may choose to supplement such predictions with qualitative judgments as well. Because the procedures for determining compliance with Subpart B have not been formulated and tested yet, this appendix to the rule indicates the Agency's assumptions regarding certain issues that may arise when implementing §§ 191.13, 191.15, and 191.16. Most of this guidance applies to any type of disposal system for the wastes covered by this rule. However, several sections apply only to disposal in mined geologic repositories and would be inappropriate for other types of disposal systems.

Consideration of Total Disposal System. When predicting disposal system performance, the Agency assumes that reasonable projections of the protection expected from all of the engineered and natural barriers of a disposal system will be considered. Portions of the disposal system should not be disregarded, even if projected performance is uncertain, except for portions of the system that make negligible contributions to the overall isolation provided by the disposal system.

Scope of Performance Assessments. Section 191.13 requires the implementing agencies to evaluate compliance through performance assessments as defined in § 191.12(q). The Agency assumes that such performance assessments need not consider categories of events or processes that are estimated to have less than one chance in 10,000 of occurring over 10,000 years. Furthermore, the performance assessments need not evaluate in detail the releases from all events and processes estimated to have a greater likelihood of occurrence. Some of these events and processes may be omitted from the performance assessments if there is a reasonable expectation that the remaining probability distribution of cumulative releases would not be significantly changed by such omissions.

Compliance with § 191.13. The Agency assumes that, whenever practicable, the implementing agency will assemble all of the results of the performance assessments to determine compliance with § 191.13 into a "complementary cumulative distribution function" that indicates the probability of exceeding various levels of cumulative release. When the uncertainties in parameters are considered in a performance assessment, the effects of the uncertainties considered can be incorporated into a single such distribution function for each disposal system considered. The Agency assumes that a disposal system can be considered to be in compliance with § 191.13 if this single distribution function meets the requirements of § 191.13(a).

Compliance with §§ 191.15 and 191.16. When the uncertainties in undisturbed performance of a disposal system are considered, the implementing agencies need not require that a very large percentage of the range of estimated radiation exposures or radionuclide concentrations fall below limits established in §§ 191.15 and 191.16, respectively. The Agency assumes that compliance can be determined based upon "best estimate" predictions (e.g., the mean or the median of the appropriate distribution, whichever is higher).

Institutional Controls. To comply with § 191.14(a), the implementing agency will assume that none of the active institutional controls prevent or reduce radionuclide releases for more than 100 years after disposal. However, the Federal Government is committed to retaining ownership of all disposal sites for spent nuclear fuel and high-level and transuranic radioactive wastes and will establish appropriate markers and records, consistent with § 191.14(c). The Agency assumes that, as long as such passive institutional controls endure and are understood, they: (1) Can be effective in deterring systematic or persistent exploitation of these disposal sites; and (2) can reduce the likelihood of inadvertent, intermittent human intrusion to a degree to be determined by the implementing agency. However, the Agency believes that passive institutional controls can never be assumed to eliminate the chance of inadvertent and intermittent human intrusion into these disposal sites.

Consideration of Inadvertent Human Intrusion into Geologic Repositories. The most speculative potential disruptions of a mined geologic repository are those associated with inadvertent human intrusion. Some types of intrusion would have virtually no effect on a repository's containment of waste. On the other hand, it is possible to conceive of intrusions (involving widespread societal loss of knowledge regarding radioactive wastes) that could result in major disruptions that no reasonable repository selection or design precautions could alleviate. The Agency believes that the most productive consideration of inadvertent intrusion concerns those realistic possibilities that may be usefully mitigated by repository design, site selection, or use of passive controls (although passive institutional controls should not be assumed to completely rule out the possibility of intrusion). Therefore, inadvertent and intermittent intrusion by exploratory drilling for resources (other than any provided by the disposal system itself) can be the most severe intrusion scenario assumed by the implementing agencies. Furthermore, the implementing agencies can assume that passive institutional controls or the intruders' own exploratory procedures are adequate for the intruders to soon detect, or be warned of, the incompatibility of the area with their activities.

Frequency and Severity of Inadvertent Human Intrusion into Geologic Repositories. The implementing agencies should consider the effects of each particular disposal system's site, design, and passive institutional controls in judging the likelihood and consequences of such inadvertent exploratory drilling. However, the Agency assumes that the likelihood of such inadvertent and intermittent drilling need not be taken to be greater than 30 boreholes per square kilometer of repository area per 10,000 years for geologic repositories in proximity to sedimentary rock formations, or more than 3 boreholes per square kilometer per 10,000 years for repositories in other geologic formations. Furthermore, the Agency assumes that the consequences of such inadvertent drilling need not be assumed to be more severe than: (1) Direct release to the land surface of all the ground water in the repository horizon that would promptly flow through the newly created borehole to the surface due to natural lithostatic pressure—or (if pumping would be required to raise water to the surface) release of 200 cubic meters of ground water pumped to the surface if that much water is readily available to be pumped; and (2) creation of a ground water flow path with a permeability typical of a borehole filled by the soil or gravel that would normally settle into an open hole over time—not the permeability of a carefully sealed borehole.

PART 192—HEALTH AND ENVIRONMENTAL PROTECTION STANDARDS FOR URANIUM AND THORIUM MILL TAILINGS

Subpart A—Standards for the Control of Residual Radioactive Materials from Inactive Uranium Processing Sites

Sec.
192.00 Applicability.
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Subpart B—Standards for Cleanup of Land and Buildings Contaminated with Residual Radioactive Materials from Inactive Uranium Processing Sites

192.10 Applicability.
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Subpart C—Implementation

192.20 Guidance for implementation.
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Subpart D—Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

192.30 Applicability.
192.31 Definitions and cross-references.
192.32 Standards.
192.33 Corrective action programs.
192.34 Effective date.

TABLE A TO SUBPART D

Subpart E—Standards for Management of Thorium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

192.40 Applicability.
192.41 Provisions.
192.42 Substitute provisions.
192.43 Effective date.

AUTHORITY: Sec. 275 of the Atomic Energy Act of 1954, 42 U.S.C. 2022, as added by the Uranium Mill Tailings Radiation Control Act of 1978, Pub. L. 95-604, as amended.

SOURCE: 48 FR 602, Jan. 5, 1983, unless otherwise noted.

Subpart A—Standards for the Control of Residual Radioactive Materials from Inactive Uranium Processing Sites

§ 192.00 Applicability.

This subpart applies to the control of residual radioactive material at designated processing or depository sites under section 108 of the Uranium Mill Tailings Radiation Control Act of 1978 (henceforth designated "the Act"), and to restoration of such sites following any use of subsurface minerals under section 104(h) of the Act.

§ 192.01 Definitions.

(a) Unless otherwise indicated in this subpart, all terms shall have the same meaning as in Title I of the Act.

(b) *Remedial* action means any action performed under section 108 of the Act.

(c) *Control* means any remedial action intended to stabilize, inhibit future misuse of, or reduce emissions or effluents from residual radioactive materials.

(d) *Disposal site* means the region within the smallest perimeter of residual radioactive material (excluding cover materials) following completion of control activities.

(e) *Depository site* means a disposal site (other than a processing site) selected under section 104(b) or 105(b) of the Act.

(f) *Curie* (Ci) means the amount of radioactive material that produces 37 billion nuclear transformation per second. One picocurie (pCi) = 10^{-12}Ci.

§ 192.02 Standards.

Control shall be designed[1] to:

(a) Be effective for up to one thousand years, to the extent reasonably achievable, and, in any case, for at least 200 years, and,

(b) Provide reasonable assurance that releases of radon-222 from residual radioactive material to the atmosphere will not:

(1) Exceed an average[2] release rate of 20 picocuries per square meter per second, *or*

(2) Increase the annual average concentration of radon-222 in air at or above any location outside the disposal site by more than one-half picocurie per liter.

Subpart B—Standards for Cleanup of Land and Buildings Contaminated with Residual Radioactive Materials from Inactive Uranium Processing Sites

§ 192.10 Applicability.

This subpart applies to land and buildings that are part of any processing site designated by the Secretary of Energy under section 102 of the Act. section 101 of the Act, states, in part, that "processing site" means—

(a) Any site, including the mill, containing residual radioactive materials at which all or substantially all of the uranium was produced for sale to any Federal agency prior to January 1, 1971, under a contract with any Federal agency, except in the case of a site at or near Slick Rock, Colorado, unless—

(1) Such site was owned or controlled as of Januray 1, 1978, or is thereafter owned or controlled, by any Federal agency, or

(2) A license (issued by the (Nuclear Regulatory) Commission or its predecessor agency under the Atomic Energy Act of 1954 or by a State as permitted under section 274 of such Act) for the production at site of any uranium or thorium product derived from ores is in effect on January 1, 1978, or is issued or renewed after such date; and

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[1] Because the standard applies to design, monitoring after disposal is not required to demonstrate compliance.

[2] This average shall apply over the entire surface of the disposal site and over at least a one-year period. Radon will come from both residual radioactive materials and from materials covering them. Radon emissions from the covering materials should be estimated as part of developing a remedial action plan for each site. The standard, however, applies only to emissions from residual radioactive materials to the atmosphere.

(b) Any other real property or improvement thereon which—

(1) Is in the vicinity of such site, and

(2) Is determined by the Secretary, in consultation with the Commission, to be contaminated with residual radioactive materials derived from such site.

§ 192.11 Definitions.

(a) Unless otherwise indicated in this subpart, all terms shall have the same meaning as defined in Title I of the Act or in Subpart A.

(b) "Land" means any surface or subsurface land that is not part of a disposal site and is not covered by an occupiable building.

(c) "Working Level" (WL) means any combination of short-lived radon decay products in one liter of air that will result in the ultimate emission of alpha particles with a total energy of 130 billion electron volts.

(d) "Soil" means all unconsolidated materials normally found on or near the surface of the earth including, but not limited to, silts, clays, sands, gravel, and small rocks.

§ 192.12 Standards.

Remedial actions shall be conducted so as to provide reasonable assurance that, *as a result of residual radioactive materials from any designated processing site:*

(a) The concentration of radium-226 in land averaged over any area of 100 square meters shall not exceed the background level by more than—

(1) 5 pCi/g, averaged over the first 15 cm of soil below the surface, and

(2) 15 pCi/g, averaged over 15 cm thick layers of soil more than 15 cm below the surface.

(b) In any occupied or habitable building—

(1) The objective of remedial action shall be, and reasonable effort shall be made to achieve, an annual average (or equivalent) radon decay product concentration (including background) not to exceed 0.02 WL. In any case, the radon decay product concentration (including background) shall not exceed 0.03 WL, and

(2) The level of gamma radiation shall not exceed the background level by more than 20 microroentgens per hour.

Subpart C—Implementation

§ 192.20 Guidance for implementation.

Section 108 of the Act requires the Secretary of Energy to select and perform remedial actions with the concurrence of the Nuclear Regulatory Commission and the full participation of any State that pays part of the cost, and in consultation, as appropriate, with affected Indian Tribes and the Secretary of the Interior. These parties, in their respective roles under section 108, are referred to hereafter as "the implementing agencies." The implementing agencies shall establish methods and procedures to provide "reasonable assurance" that the provisions of Subparts A and B are satisfied. This should be done as appropriate through use of analytic models and site-specific analyses, in the case of Subpart A, and for Subpart B through measurements performed within the accuracy of currently available types of field and laboratory instruments in conjunction with reasonable survey and sampling procedures. These methods and procedures may be varied to suit conditions at specific sites. In particular:

(a)(1) The purpose of Subpart A is to provide for long-term stabilization and isolation in order to inhibit misuse and spreading of residual radioactive materials, control releases of radon to air, and protect water. Subpart A may be implemented through analysis of the physical properties of the site and the control system and projection of the effects of natural processes over time. Events and processes that could significantly affect the average radon release rate from the entire disposal site should be considered. Phenomena that are localized or temporary, such as local cracking or burrowing of rodents, need to be taken into account only if their cumulative effect would be significant in determining compliance with the standard. Computational models, theories, and prevalent expert judgment may be used to decide that a control system design will satisfy the standard. The numerical range provided in the standard for the longevity of the effectiveness of the control of residual radioactive materials allows for consideration of the various factors affecting the longevity of control and stabilization methods and their costs. These factors have different levels of predictability and may vary for the different sites.

(2) Protection of water should be considered in the analysis for reasonable assurance of compliance with the provisions of § 192.02. Protection of water should be considered on a case-specific basis, drawing on hydrological and geochemical surveys and all other relevant data. The hydrologic and geologic assessment to be conducted at each site should include a monitoring program sufficient to establish background ground water quality through one or more upgradient wells, and identify the presence and movement of plumes associated with the tailings piles.

(3) If contaminants have been released from a tailings pile, an assessment of the location of the contaminants and the rate and direction of movement of contaminated ground water, as well as its relative contamination, should be made. In addition, the assessment should identify the attenuative capacity of the unsaturated and saturated zone to determine the extent of plume movement. Judgments on the possible need for remedial or protective actions for groundwater aquifers should be guided by relevant considerations described in EPA's hazardous waste management system (47 FR 32274, July 26, 1982) and by relevant State and Federal Water Quality Criteria for anticipated or existing uses of water over the term of the stabilization. The decision on whether to institute remedial action, what specific action to take, and to what levels an aquifer should be protected or restored should be made on a case-by-case basis taking into account such factors as technical feasibility of improving the aquifer in its hydrogeologic setting, the cost of applicable restorative or protective programs, the present and future value of the aquifer as a water resource, the availability of alternative water supplies, and the degree to which human exposure is likely to occur.

(b)(1) Compliance with Subpart B, to the extent practical, should be demonstrated through radiation surveys. Such surveys may, if appropriate, be restricted to locations likely to contain residual radioactive materials. These surveys should be designed to provide for compliance averaged over limited areas rather than point-by-point compliance with the standards. In most cases, measurement of gamma radiation exposure rates above and below the land surface can be used to show compliance with § 192.12(a). Protocols for making such measurements should be based on realistic radium distributions near the surface rather than extremes rarely encountered.

(2) In § 192.12(a), "background level" refers to the native radium concentration in soil. Since this may not be determinable in the presence of contamination by residual radioactive materials, a surrogate "background level" may be established by simple direct or indirect (e.g., gamma radiation) measurements performed nearby but outside of the contaminated location.

(3) Compliance with § 192.12(b) may be demonstrated by methods that the Department of Energy has approved for use under Pub. L. 92-314 (10 CFR Part 712), or by other methods that the implementing agencies determine are adequate. Residual radioactive materials should be removed from buildings exceeding 0.03 WL so that future replacement buildings will not pose a hazard [unless removal is not practical—see § 192.21(c)]. However, sealants, filtration, and ventilation devices may provide reasonable assurance of reductions from 0.03 WL to below 0.02 WL. In unusual cases, indoor radiation may exceed the levels specified in § 192.12(b) due to sources other than residual radioactive materials. Remedial actions are not required in order to comply with the standard when there is reasonable assurance that residual radioactive materials are not the cause of such an excess.

§ 192.21 Criteria for applying supplemental standards.

The implementing agencies may (and in the case of subsection (f) shall) apply standards under § 192.22 in lieu of the standards of Subpart A or B if they determine that any of the following circumstances exists:

(a) Remedial actions required to satisfy Subpart A or B would pose a clear and present risk of injury to workers or to members of the public, notwithstanding reasonable measures to avoid or reduce risk.

(b) Remedial actions to satisfy the cleanup standards for land, § 192.12(a), or the acquisition of minimum materials required for control to satisfy § 192.02(b), would, notwithstanding reasonable measures to limit damage, directly produce environmental harm that is clearly excessive compared to the health benefits to persons living on or near the site, now or in the future. A clear excess of environmental harm is harm that is long-term, manifest, and grossly disproportionate to health benefits that may reasonably be anticipated.

(c) The estimated cost of remedial action to satisfy § 192.12(a) at a "vicinity" site (described under section 101(6)(B) of the Act) is unreasonably high relative to the long-term benefits, and the residual radioactive materials do not pose a clear present or future hazard. The likelihood that buildings will be erected or that people will spend long periods of time at such a vicinity site should be considered in evaluating this hazard. Remedial action will generally not be necessary where residual radioactive materials have been placed semi-permanently in a location where site-specific factors limit their hazard and from which they are costly or difficult to remove, or where only minor quantities of residual radioactive materials are involved. Examples are residual radioactive materials under hard surface public roads and sidewalks, around public sewer lines, or in fence post foundations. Supplemental standards should not be applied at such sites, however, if individuals are likely to be exposed for long periods of time to radiation from such materials at levels above those that would prevail under § 192.12(a).

(d) The cost of a remedial action for cleanup of a building under § 192.12(b) is clearly unreasonably high relative to the benefits. Factors that should be included in this judgment are the anticipated period of occupancy, the incremental radiation level that would be affected by the remedial action, the residual useful lifetime of the building, the potential for future construction at the site, and the applicability of less costly remedial methods than removal of residual radioactive materials.

(e) There is no known remedial action.

(f) Radionuclides other than radium-226 and its decay products are present in sufficient quantity and concentration to constitute a significant radiation hazard from residual radioactive materials.

§ 192.22 Supplemental standards.

Federal agencies implementing Subparts A and B may in lieu thereof proceed pursuant to this section with respect to generic or individual situations meeting the eligibility requirements of § 192.21.

(a) When one or more of the criteria of § 192.21(a) through (e) applies, the implementing agencies shall select and perform remedial actions that come as close to meeting the otherwise applicable standard as is reasonable under the circumstances.

(b) When § 192.21(f) applies, remedial actions shall, in addition to satisfying the standards of Subparts A and B, reduce other residual radioactivity to levels that are as low as is reasonably achievable.

(c) The implementing agencies may make general determinations concerning remedial actions under this section that will apply to all locations with specified characteristics, or they may make a determination for a specific location. When remedial actions are proposed under this section for a specific location, the Department of Energy shall inform any private owners and occupants of the affected location and solicit their comments. The Department of Energy shall provide any such comments to the other implementing agencies. The Department of Energy shall also periodically inform the Environmental Protection Agency of both general and individual determinations under the provisions of this section.

§ 192.23 Effective date.

Subparts A, B, and C shall be effective March 7, 1983.

Subpart D—Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

SOURCE: 48 FR 45946, Oct. 7, 1983, unless otherwise noted.

§ 192.30 Applicability.

This subpart applies to the management of uranium byproduct materials under section 84 of the Atomic Energy Act of 1954 (henceforth designated "the Act"), as amended, during and following processing of uranium ores, and to restoration of disposal sites following any use of such sites under section 83(b)(1)(B) of the Act.

§ 192.31 Definitions and cross-references.

References in this subpart to other parts of the Code of Federal Regulations are to those parts as codified on January 1, 1983.

(a) Unless otherwise indicated in this subpart, all terms shall have the same meaning as in Title II of the Uranium Mill Tailings Rediation Control Act of 1978, Subparts A and B of this part, or Parts 190, 260, 261, and 264 of this chapter. For the purposes of this subpart, the terms "waste," "hazardous waste," and related terms, as used in Parts 260, 261, and 264 of this chapter shall apply to byproduct material.

(b) *Uranium byproduct material* means the tailings or wastes produced by the extraction or concentration of uranium from any ore processed primarily for its source material content. Ore bodies depleted by uranium solution extraction operations and which remain underground do not constitute "byproduct material" for the purpose of this subpart.

(c) *Control* means any action to stabilize, inhibit future misuse of, or reduce emissions or effluents from uranium byproduct materials.

(d) *Licensed site* means the area contained within the boundary of a location under the control of persons generating or storing uranium byproduct materials under a license issued pursuant to section 84 of the Act. For purposes of this subpart, "licensed site" is equivalent to "regulated unit" in Subpart F of Part 264 of this chapter.

(e) *Disposal site* means a site selected pursuant to section 83 of the Act.

(f) *Disposal area* means the region within the perimeter of an impoundment or pile containing uranium by product materials to which the post-closure requirements of § 192.32(b)(1) of this subpart apply.

(g) *Regulatory agency* means the U.S. Nuclear Regulatory Commission.

(h) *Closure period* means the period of time beginning with the cessation, with respect to a waste impoundment, of uranium ore processing operations and ending with completion of requirements specified under a closure plan.

(i) *Closure plan* means the plan required under § 264.112 of this chapter.

(j) *Existing portion* means that land surface area of an existing surface impoundment on which significant quantities of uranium byproduct materials have been placed prior to promulgation of this standard.

§ 192.32 Standards.

(a) *Standards for application during processing operations and prior to the end of the closure period.* (1) Surface impoundments (except for an existing portion) subject to this subpart must be designed, constructed, and installed in such manner as to conform to the requirements of § 264.221 of this chapter, except that at sites where the annual precipitation falling on the impoundment and any drainage area contributing surface runoff to the impoundment is less than the annual evaporation from the impoundment, the requirements of § 264.228(a)(2)(iii)(E) referenced in § 264.221 do not apply.

(2) Uranium byproduct materials shall be managed so as to conform to the ground water protection standard

in § 264.92 of this chapter, except that for the purposes of this subpart:

(i) To the list of hazardous constituents referenced in § 264.93 of this chapter are added the chemical elements molybdenum and uranium,

(ii) To the concentration limits provided in Table 1 of § 264.94 of this chapter are added the radioactivity limits in Table A of this subpart,

(iii) Detection monitoring programs required under § 264.98 to establish the standards required under § 264.92 shall be completed within one (1) year of promulgation,

(iv) The regulatory agency may establish alternate concentration limits (to be satisfied at the point of compliance specified under § 264.95) under the criteria of § 264.94(b), provided that, after considering practicable corrective actions, these limits are as low as reasonably achievable, and that, in any case, the standards of § 264.94(a) are satisfied at all points at a greater distance than 500 meters from the edge of the disposal area and/or outside the site boundary, and

(v) The functions and responsibilities designated in Part 264 of this chapter as those of the "Regional Administrator" with respect to "facility permits" shall be carried out by the regulatory agency, except that exemptions of hazardous constituents under § 264.93 (b) and (c) of this chapter and alternate concentration limits established under § 264.94 (b) and (c) of this chapter (except as otherwise provided in § 192.32(a)(2)(iv)) shall not be effective until EPA has concurred therein.

(3) Uranium byproduct materials shall be managed so as to conform to the provisions of:

(i) Part 190 of this chapter, "Environmental Radiation Protection Standards for Nuclear Power Operations" and

(ii) Part 440 of this chapter, "Ore Mining and Dressing Point Source Category: Effluent Limitations Guidelines and New Source Performance Standards, Subpart C, Uranium, Radium, and Vanadium Ores Subcategory."

(4) The regulatory agency, in conformity with Federal Radiation Protection Guidance (FR, May 18, 1960, pgs. 4402-4403), shall make every effort to maintain radiation doses from radon emissions from surface impoundments of uranium byproduct materials as far below the Federal Radiation Protection Guides as is practicable at each licensed site.

(b) *Standards for application after the closure period.* At the end of the closure period:

(1) Disposal areas shall each comply with the closure performance standard in § 264.111 of this chapter with respect to nonradiological hazards and shall be designed[1] to provide reasonable assurance of control of radiological hazards to

(i) Be effective for one thousand years, to the extent reasonably achievable, and, in any case, for at least 200 years, and,

(ii) Limit releases of radon-222 from uranium byproduct materials to the atmosphere so as to not exceed an average[2] release rate of 20 picocuries per square meter per second (pCi/m^{2}s).

(2) The requirements of § 192.32(b)(1) shall not apply to any portion of a licensed and/or disposal site which contains a concentration of radium-226 in land, averaged over areas of 100 square meters, which, as a result of uranium byproduct material, does not exceed the background level by more than:

(i) 5 picocuries per gram (pCi/g), averaged over the first 15 centimeters (cm) below the surface, and

(ii) 15 pCi/g, averaged over 15 cm thick layers more than 15 cm below the surface.

§ 192.33 Corrective action programs.

If the ground water standards established under provisions of

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[1] The standard applies to design. Monitoring for radon-222 after installation of an appropriately designed cover is not required.

[2] This average shall apply to the entire surface of each disposal area over periods of at least one year, but short compared to 100 years. Radon will come from both uranium byproduct materials and from covering materials. Radon emissions from covering materials should be estimated as part of developing a closure plan for each site. The standard, however, applies only to emissions from uranium byproduct materials to the atmosphere.

§ 192.32(a)(2) are exceeded at any licensed site, a corrective action program as specified in § 264.100 of this chapter shall be put into operation as soon as is practicable, and in no event later than eighteen (18) months after a finding of exceedance.

§ 192.34 Effective date.

Subpart D shall be effective December 6, 1983.

TABLE A TO SUBPART D

	pCi/liter
Combined radium-226 and radium-228	5
Gross alpha-particle activity (excluding radon and uranium)	15

Subpart E—Standards for Management of Thorium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

SOURCE: 48 FR 45947, Oct 7, 1983, unless otherwise noted.

§ 192.40 Applicability.

This subpart applies to the management of thorium byproduct materials under section 84 of the Atomic Energy Act of 1954, as amended, during and following processing of thorium ores, and to restoration of disposal sites following any use of such sites under section 83(b)(1)(B) of the Act.

§ 192.41 Provisions.

The provisions of Subpart D of this part, including §§ 192.31, 192.32, and 192.33, shall apply to thorium byproduct material and:

(a) Provisions applicable to the element uranium shall also apply to the element thorium;

(b) Provisions applicable to radon-222 shall also apply to radon-220; and

(c) Provisions applicable to radium-226 shall also apply to radium-228.

(d) Operations covered under § 192.32(a) shall be conducted in such a manner as to provide reasonable assurance that the annual dose equivalent does not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public as a result of exposures to the planned discharge of radioactive materials, radon-220 and its daughters excepted, to the general environment.

§ 192.42 Substitute provisions.

The regulatory agency may, with the concurrence of EPA, substitute for any provisions of § 192.41 of this subpart alternative provisions it deems more practical that will provide at least an equivalent level of protection for human health and the environment.

§ 192.43 Effective date.

Subpart E shall be effective December 6, 1983.

SUBCHAPTER G—NOISE ABATEMENT PROGRAMS

PART 201—NOISE EMISSION STANDARDS FOR TRANSPORTATION EQUIPMENT; INTERSTATE RAIL CARRIERS

Subpart A—General Provisions

Sec.

201.1 Definitions.

APPENDIX A—SWITCHER LOCOMOTIVES

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Subpart C—Measurement Criteria

201.20 Applicability and purpose.

201.21 Quantities measured.

201.22 Measurement instrumentation.

201.23 Test site, weather conditions and background noise criteria for measurement at a 30 meter (100 feet) distance of the noise from locomotive and rail car operations and locomotive load cell test stands.

201.24 Procedures for measurement at a 30 meter (100 feet) distance of the noise from locomotive and rail car operations and locomotive load cell test stands.

201.25 Measurement location and weather conditions for measurement on receiving property of the noise of retarders, car coupling, locomotive load cell test stands, and stationary locomotives.

201.26 Procedures for the measurement on receiving property of retarder and car coupling noise.

201.27 Procedures for: (1) Determining applicability of the locomotive load cell test stand standard and switcher locomotive standard by noise measurement on a receiving property; (2) measurement of locomotive load cell test stands more than 120 meters (400 feet) on a receiving property.

201.28 Testing by railroad to determine probable compliance with the standard.

AUTHORITY: Noise Control Act of 1972, sec. 17(a), 86 Stat. 1234 (42 U.S.C. 4916(a)).

SOURCE: 45 FR 1263, Jan. 4, 1980, unless otherwise noted.

Subpart A—General Provisions

§ 201.1 Definitions.

As used in this part, all terms not defined herein shall have the meaning given them in the Act:

(a) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234).

(b) "Car Coupling Sound" means a sound which is heard and identified by the observer as that of car coupling impact, and that causes a sound level meter indicator (FAST) to register an increase of at least ten decibels above the level observed immediately before hearing the sound.

(c) "Carrier" means a common carrier by railroad, or partly by railroad and partly by water, within the continental United States, subject to the Interstate Commerce Act, as amended, excluding street, suburban, and interurban electric railways unless operated as a part of a general railroad system of transportation.

(d) "Classification of Railroads" means the division of railroad industry operating companies by the Interstate Commerce Commission into three categories. As of 1978, Class I railroads must have annual revenues of $50 million or greater, Class II railroads must have annual revenues of between $10 and $50 million, and Class III railroads must have less than $10 million in annual revenues.

(e) "Commercial Property" means any property that is normally accessible to the public and that is used for any of the purposes described in the following standard land use codes (reference *Standard Land Use Coding Manual.* U.S. DOT/FHWA, reprinted March 1977): 53-59, Retail Trade; 61-64, Finance, Insurance, Real Estate, Personal, Business and Repair Services; 652-659, Legal and other professional services; 671, 672, and 673 Governmental Services; 692 and 699, Welfare, Charitable and Other Miscellaneous Services; 712 and 719, Nature exhibitions and other Cultural Activities; 721, 723, and 729, Entertainment, Public and other Public Assembly; and 74-79, Recreational, Resort, Park and other Cultural Activities.

(f) "dB(A)" is an abbreviation meaning A-weighted sound level in decibels, reference: 20 micropascals.

(g) "Day-night Sound Level" means the 24-hour time of day weighted equivalent sound level, in decibels, for any continuous 24-hour period, obtained after addition of ten decibels to sound levels produced in the hours from 10 p.m. to 7 a.m. (2200-0700). It is abbreviated as L_{dn}.

(h) "Decibel" means the unit measure of sound level, abbreviated as dB.

(i) "Energy Average Level" means a quantity calculated by taking ten times the common logarithm of the arithmetic average of the antilogs of one-tenth of each of the levels being averaged. The levels may be of any consistent type, e.g. maximum sound levels, sound exposure levels, and day-night sound levels.

(j) "Energy Summation of Levels" means a quantity calculated by taking ten times the common logarithm of the sum of the antilogs of one-tenth of each of the levels being summed. The levels may be of any consistent type, e.g., day-night sound level or equivalent sound level.

(k) "Equivalent Sound Level" means the level, in decibels, of the mean-square A-weighted sound pressure during a stated time period, with reference to the square of the standard reference sound pressure of 20 micropascals. It is the level of the sound exposure divided by the time period and is abbreviated as L_{eq}.

(l) "Fast Meter Response" means that the "fast" response of the sound level meter shall be used. The fast dynamic response shall comply with the meter dynamic characteristics in paragraph 5.3 of the American National Standard Specification for Sound Level Meters. ANSI S1.4-1971. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(m) "Idle" means that condition where all engines capable of providing motive power to the locomotive are set at the lowest operating throttle position; and where all auxiliary non-motive power engines are not operating.

(n) "Interstate Commerce" means the commerce between any place in a State and any place in another State, or between places in the same State through another State, whether such commerce moves wholly by rail or partly by rail and partly by motor vehicle, express, or water. This definition of "interstate commerce" for purposes of this regulation is similar to the definition of "interstate commerce" in section 203(a) of the Interstate Commerce Act (49 U.S.C. 303(a)).

(o) "Load Cell" means a device external to the locomotive, of high electrical resistance, used in locomotive testing to simulate engine loading while the locomotive is stationary. (Electrical energy produced by the diesel generator is dissipated in the load cell resistors instead of the traction motors).

(p) "Locomotive" means for the purpose of this regulation, a self-propelled vehicle designed for and used on railroad tracks in the transport or rail cars, including self-propelled rail passenger vehicles.

(q) "Locomotive Load Cell Test Stand" means the load cell § 201.1(o) and associated structure, equipment, trackage and locomotive being tested.

(r) "Maximum Sound Level" means the greatest A-weighted sound level in decibels measured during the designated time interval or during the event, with either fast meter response § 201.1(l) or slow meter response § 201.1(ii) as specified. It is abbreviated as L_{max}.

(s) "Measurement Period" means a continuous period of time during which noise of railroad yard operations is assessed, the beginning and finishing times of which may be selected after completion of the measurements.

(t) "Rail Car" means a non-self-propelled vehicle designed for and used on railroad tracks.

(u) "Railroad" means all the roads in use by any common carrier operating a railroad, whether owned or operated under a contract, agreement, or lease.

(v) "Receiving Property Measurement Location" means a location on receiving property that is on or beyond the railroad facility boundary and that meets the receiving property measurement location criteria of Subpart C.

(w) "Receiving Property" means any residential or commercial property that receives the sound from railroad facility operations, but that is not owned or operated by a railroad; except that occupied residences located on property owned or controlled by the railroad are included in the definition of "receiving property." For purposes of this definition railroad crew sleeping quarters located on property owned or controlled by the railroad are not considered as residences. If, subsequent to the publication date of these regulations, the use of any property that is currently not applicable to this regulation changes, and it is newly classified as either residential or commercial, it is not receiving property until four years have elapsed from the date of the actual change in use.

(x) "Residential Property" means any property that is used for any of the purposes described in the following standard land use codes (ref. *Standard Land Use Coding Manual*. U.S. DOT/FHWA Washington, DC, reprinted March 1977): 1, Residential: 651, Medical and other Health Services; 68, Educational Services; 691, Religious Activities; and 711, Cultural Activities.

(y) "Retarder (Active)" means a device or system for decelerating rolling rail cars and controlling the degree of deceleration on a car by car basis.

(z) "Retarder Sound" means a sound which is heard and identified by the observer as that of a retarder, and that causes a sound level meter indicator at fast meter response § 201.1(l) to register an increase of at least ten decibels above the level observed immediately before hearing the sound.

(aa) "Sound Level" means the level, in decibels, measured by instrumentation which satisfies the requirements of American National Standard Specification for Sound Level Meters S1.4-1971 Type 1 (or S1A) or Type 2 if adjusted as shown in Table 1. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018. For the purpose of these procedures the sound level is to be measured using the Aweighting of spectrum and either the FAST or SLOW dynamic averaging characteristics, as designated. It is abbreviated as L_A.

(bb) "Sound Exposure Level" means the level in decibels calculated as ten times the common logarithm of time integral of squared A-weighted sound pressure over a given time period or event divided by the square of the standard reference sound pressure of 20 micropascals and a reference duration of one second.

(cc) "Sound Pressure Level" (in stated frequency band) means the level, in decibels, calculated as 20 times the common logarithm of the ratio of a sound pressure to the reference sound pressure of 20 micropascals.

(dd) "Special Purpose Equipment" means maintenance-of-way equipment which may be located on or operated from rail cars including: Ballast cribbing machines, ballast regulators, conditioners and scarifiers, bolt machines, brush cutters, compactors, concrete mixers, cranes and derricks, earth boring machines, electric welding machines, grinders, grouters, pile drivers, rail heaters, rail layers, sandblasters, snow plows, spike drivers, sprayers and other types of such maintenance-of-way equipment.

(ee) "Special Track Work" means track other than normal tie and ballast bolted or welded rail or containing devices such as retarders or switching mechanisms.

(ff) "Statistical Sound Level" means the level in decibels that is exceeded in a stated percentage (x) of the duration of the measurement period. It is abbreviated as L_x.

(gg) "Switcher Locomotive" means any locomotive designated as a switcher by the builder or reported to the ICC as a switcher by the operator-owning-railroad and including, but not limited to, all locomotives of the builder/model designations listed in Appendix A to this subpart.

(hh) "Warning Device" means a sound emitting device used to alert and warn people of the presence of railroad equipment.

(ii) "Slow Meter Response" means that the slow response of the sound level meter shall be used. The slow dynamic response shall comply with the meter dynamic characteristics in paragraph 5.4 of the American National Standard Specification for Sound Level Meters, ANSI S1.4-1971. This publication is available from the American National Standards Institute Inc., 1430 Broadway, New York, New York 10018.

[45 FR 1263, Jan. 4, 1980, as amended at 47 FR 14709, Apr. 6, 1982]

APPENDIX A—SWITCHER LOCOMOTIVES

[The following locomotives are considered to be "switcher locomotives" under the general definition of this regulation]

Type	Engine
General Electric Co.	
44 ton	8-D17000(2)
70 ton	6-CBFWL-6T
95 ton	6-CBFWL-6T
Electromotive Division (GMC)	
SC	8-201A.
NC	12-201A.
NC1	12-201A.
NC2	12-201A.
NW	12-201A.
NW1	12-201A.
NW1A	12-201A.
NW2	12-567.
NW2	12-567A.
NW3	12-567.
NW4	12-201A.
NW5	12-567B.
SW	8-201A/6-567.
SW1	6-567A/AC.
SW2	6-567.
SW3	6-567.
SW600	6-567C.
SW7	12-567A.
SW8	8-567B/BC.
SW900	8-567B.
SW9	12-567B/BC/C.
SW1200	12-567C.
SW1000	8-645E.
SW1001	8-645E.
SW1500	12-645E.
MP15	12-645E.
MP15AC	12-645E.
GMD1	12-567C.
RS1325	12-567C.
Transfer Switcher including "Cow and Calf"	
T	12-201A(2)
TR	12-567(2)

APPENDIX A—SWITCHER LOCOMOTIVES—Continued

[The following locomotives are considered to be "switcher locomotives" under the general definition of this regulation]

Type	Engine
TR1	16-567(2)
TR2	12-567A(2)
TR3	12-567(3)
TR4	12-567A(2)
TR5	12-567B(2)
TR6	8-567B(2)
Baldwin	
VO-660	6-VO
DS-446	6-606NA.
DS4475	6-750.
S-8	6-606.
VO-1000	8-VO.
DS-4410	8-608NA.
DS-4410	6-606SC.
S-12	6-606A.
DRS-4410 [1]	6-606SC.
DRS-12 [1]	6-606A.
Fairbanks Morse	
H-10-44	6-OP.
H-12-44	6-OP.
H-12-44TS	6-OP.
H-12-46 [1]	6-OP.
Lima	
750 hp	6-Hamilton.
800 hp	6-Hamilton.
1000 hp	8-Hamilton.
1200 hp	8-Hamilton.
LRS [1]	8-Hamilton.
TL [1]	8-Hamilton (2).
ALCO and MLW	
S1	6-539NA.
S2	6-539T.
S3	6-539NA.
S4	6-539T.
S5	6-251.
S6	6-251A,B.
S7	6-539.
S10	6-539.
S11	6-539.
S12	6-539T.
S13	6-251C.
RSD-1	6-539.
RSC-13	6-539.
RSC-24	12-244
RS1	6-539T.
RS2 [1]	12-244.
RS3 [1]	12-244.
RS10 [1]	12-244.
RSC-2 [1]	12-244.
RS3 [1]	12-244.
RSD-4 [1]	12-244.
RSD-5 [1]	12-244.
T6	6-251B.
C-415 [1]	8-251F.
M-420TR	12-251.

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[1] These models may be found assigned to road service as well as switcher service, but are considered switcher locomotives for the purpose of this regulation.

Subpart B—Interstate Rail Carrier Operations Standards

§ 201.10 Applicability.

The provisions of this subpart apply to all rail cars and all locomotives, except steam locomotives, operated or controlled by carriers as defined in Subpart A of this part, except that § 201.11 (a), (b), and (c) do not apply to gas turbine-powered locomotives and to any locomotive type which cannot be connected by any standard method to a load cell. They apply to the total sound level emitted by rail cars and locomotives operated under the conditions specified, including the sound produced by refrigeration and air conditioning units which are an integral element of such equipment. The provisions of this subpart apply to all active retarders, all car coupling operations, all switcher locomotives, and all load cell test stands. These provisions do not apply to the sound emitted by a warning device, such as a horn, whistle or bell when operated for the purpose of safety. They do not apply to special purpose equipment which may be located on or operated from railcars; they do not apply to street, suburban or interurban electric railways unless operated as a part of a general railroad system of transportation. When land use changes after the publication date of this regulation from some other use to residential or commercial land use around a specific railyard facility, this regulation will become effective four (4) years from the date of that land use change.

§ 201.11 Standard for locomotive operation under stationary conditions.

(a) Commencing December 31, 1976, no carrier subject to this regulation shall operate any locomotive to which this regulation is applicable, and of which manufacture is completed on or before December 31, 1979, which produces A-weighted sound levels in excess of 93 dB at any throttle setting except idle, when operated singly and when connected to a load cell, or in excess of 73 dB at idle when operated singly, and when measured in accordance with the criteria specified in Subpart C of this part with slow meter response at a point 30 meters (100 feet) from the geometric center of the locomotive along a line that is both perpendicular to the centerline of the track and originates at the locomotive geometric center.

(b) No carrier subject to this regulation shall operate any locomotive to which this regulation is applicable, and of which manufacture is completed after December 31, 1979, which produces A-weighted sound levels in excess of 87 dB at any throttle setting except idle, when operated singly and when connected to a load cell, or in excess of 70 dB at idle when operated singly, and when measured in accordance with the criteria specified in Subpart C of this part with slow meter response at a point 30 meters (100 feet) from the geometric center of the locomotive along a line that is both perpendicular to the centerline of the track and originates at the locomotive geometric center.

(c) Commencing January 15, 1984, no carrier subject to this regulation may operate any switcher locomotive to which this regulation is applicable, and of which manufacture is completed on or before December 31, 1979, which produces A-weighted sound levels in excess of 87 dB at any throttle setting except idle, when operated singly and when connected to a load cell, or in excess of 70 dB at idle, and when measured in accordance with the criteria specified in Subpart C of this part with slow meter response at a point 30 meters (100 feet) from the geometric center of the locomotive along a line that is both perpendicular to the centerline of the track and originates at the locomotive geometric center. All switcher locomotives that operate in a particular railroad facility are deemed to be in compliance with this standard if the A-weighted sound level from stationary switcher locomotives, singly or in combination with other stationary locomotives, does not exceed 65 dB when measured with fast meter response at any receiving property measurement location near that particular railyard facility and when measured in accordance wtih Subpart C of this regulation.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.12 Standard for locomotive operation under moving conditions.

(a) Commencing December 31, 1976, no carrier subject to this regulation may operate any locomotive or combination of locomotives to which this regulation is applicable, and of which manufacture is completed on or before December 31, 1979, which produces A-weighted sound levels in excess of 96 dB when moving at any time or under any condition of grade, load, acceleration, or deceleration, when measured in accordance with the criteria specified in Subpart C of this regulation with fast meter response at 30 meters (100 feet) from the centerline of any section of track having less than a two (2) degree curve (or a radius of curvature greater than 873 meters (2865 feet)).

(b) No carrier subject to this regulation may operate any locomotive or combination of locomotives to which this regulation is applicable, and of which manufacture is completed after December 31, 1979, which produce A-weighted sound levels in excess of 90 dB when moving at any time or under any condition of grade, load, acceleration, or deceleration, when measured in accordance with the criteria specified in Subpart C of this part with fast meter response at 30 meters (100 feet) from the centerline of any section of track having less than a two (2) degree curve (or a radius of curvature greater than 873 meters (2,865 feet)).

(c) Commencing January 15, 1984, no carrier subject to this regulation may operate any switcher locomotive or a combination of switcher locomotives to which this regulation is applicable, and of which manufacture is completed on or before December 31, 1979 which produce A-weighted sound levels in excess of 90 dB when moving at any time or under any condition of grade, load, acceleration or deceleration, and when measured in accordance with the criteria in Subpart C of this part with fast meter response at 30 meters (100 feet) from the centerline of any section of track having less than a two (2) degree curve (or a radius of curvature greater than 873 meters (2,865 feet)). All switcher locomotives that operate in a particular railroad facility are deemed to be in compliance with this standard if the A-weighted sound level from stationary switcher locomotives, singly or in combination with other stationary locomotives, does not exceed 65 dB when measured with fast meter response at any receiving property measurement location near that particular railyard facility and when measured in accordance with Subpart C of this regulation.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.13 Standard for rail car operations.

Effective December 31, 1976, no carrier subject to this regulation shall operate any rail car or combination of rail cars which while in motion produce sound levels in excess of (1) 88 dB(A) at rail car speeds up to and including 75 km/hr (45 mph); or (2) 93 dB(A) at rail car speeds greater than 72 km/hr (45 mph); when measured in accordance with the criteria specified in Subpart C of this part with fast meter response at 30 meters (100) feet from the centerline of any section of track which is free of special track work or bridges or trestles and which exhibits less than a two (2) degree curve (or a radius of curvature greater than 873 meters (2,865 feet)).

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.14 Standard for retarders.

Effective January 15, 1984, no carrier subject to this regulation shall operate retarders that exceed an adjusted average maximum A-weighted sound level of 83 dB at any receiving property measurement location, when measured with fast meter response in accordance with Subpart C of this part.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.15 Standard for car coupling operations.

Effective January 15, 1984, no carrier subject to this regulation shall conduct car coupling operations that exceed an adjusted average maximum A-weighted sound level of 92 dB at any receiving property measurement location, when measured with fast meter response in accordance with Subpart C of this part, except, such coupling will be found in compliance with this standard and the carrier will be considered in compliance, if the railroad demonstrates that the standard is exceeded at the receiving property measurement locations (where the standard was previously exceeded) when cars representative of those found to exceed the standard are coupled at similar locations at coupling speeds of eight miles per hour or less.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.16 Standard for locomotive load cell test stands.

(a) Effective January 15, 1984, no carrier subject to this reguation shall operate locomotive load cell test stands that exceed an A-weighted sound level of 78 dB when measured with slow meter response in accordance with Subpart C of this part excluding § 201.23 (b) and (c), at a point 30 meters (100 feet) from the geometric center of the locomotive undergoing test, along a line that is both perpendicular to the centerline of the track and originates at the locomotive geometric center, and in the direction most nearly towards the closest receiving property measurement location. All locomotive load cell test stands in a particular railroad facility are in compliance with this standard if the A-weighted sound level from the load cell does not exceed 65 dB at any receiving property measurement location near that particular railyard facility and when measured with fast meter response in accordance with Subpart C of this regulation.

(b) If the conditions of any part of § 201.23(a) cannot be met at a specific load cell test stand site, then the A-weighted sound level from that specific load cell test stand must not exceed 65 dB when measured with fast meter response at a receiving property measurement location more than 120 meters (400 feet) from the geometric center of the locomotive being tested and in accordance with Subpart C of this regulation.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

Subpart C—Measurement Criteria

§ 201.20 Applicability and purpose.

The following criteria are applicable to and contain the necessary parameters and procedures for the measurement of the noise emission levels prescribed in the standards of Subpart B of this part. These criteria are specified in order to further clarify and define such standards. Equivalent measurement procedures may be used for establishing compliance with these regulations. Any equivalent measurement procedure, under any circumstance, shall not result in a more stringent noise control requirement than those specified in this regulation using the measurement procedures in Subpart C.

§ 201.21 Quantities measured.

The quantities to be measured under the test conditions described below, are the A-weighted sound levels for "fast" or "slow" meter response as defined in the American National Standard S1.4-1971.

§ 201.22 Measurement instrumentation.

(a) A sound level meter or alternate sound level measurement system that meets, as a minimum, all the requirements of American National Standard S1.4—1971 [1] for a Type 1 (or S1A) instrument must be used with the "fast" or "slow" meter response chacteristic as specified in Subpart B. To insure Type 1 response, the manufacturer's instructions regarding mounting or orienting of the microphone, and positioning of the observer must be observed. In the event that a Type 1 (or S1A) instrument is not available for determining non-compliance with this regulation, the measurements may be made with a Type 2 (or S2A), but with the measured levels reduced by the following amount to account for possible measurement instrument errors pertaining to specific measurements and sources:

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[1] American National Standards are available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

TABLE 1—SOUND LEVEL CORRECTIONS WHEN USING A TYPE 2 (OR S2A) INSTRUMENT

Measurement section	Source	Decibels[1]
201.24	Locomotives	0
	Rail cars	0
	Locomotive load cell test stand	0
201.26	Retarder	4
	Car coupling	2
201.27	Locomotive load cell test stand	0
	Stationary locomotive	0

[1] Amount of correction to be subtracted from measured level (dB).

(b) A microphone windscreen and an acoustic calibrator of the coupler type must be used as recommended by: (1) the manufacturer of the sound level meter or (2) the manufacturer of the microphone. The choice of both devices must be based on ensuring that Type 1 or 2 performance, as appropriate, is maintained for frequencies below 10,000 Hz.

§ 201.23 Test site, weather conditions and background noise criteria for measurement at a 30 meter (100 feet) distance of the noise from locomotive and rail car operations and locomotive load cell test stands.

(a) The standard test site shall be such that the locomotive or train radiates sound into a free field over the ground plane. This condition may be considered fulfilled if the test site consists of an open space free of large, sound reflecting objects, such as barriers, hills, signboards, parked vehicles, locomotives or rail cars on adjacent tracks, bridges or buildings within the boundaries described by Figure 1, as well as conforms to the other requirements of this § 201.23.

(b) Within the complete test site, the top of at least one rail upon which the locomotive or train is located shall be visible (line of sight) from a position 1.2 meters (4 feet) above the ground at the microphone location, except as provided in paragraph (c) of this section.

(c) Ground cover such as vegetation, fenceposts, small trees, telephone poles, etc., shall be limited within the area in the test site between the vehicle under test and the measuring microphone such that 80 percent of the top of at least one rail along the entire test section of track be visible from a position 1.2 meters (4 feet) above the ground at the microphone location; except that no single obstruction shall account for more than 5 percent of the total allowable obstruction.

(d) The ground elevation at the microphone location shall be within plus 1.5 meters (5 feet) or minus 3.0 meters (10 feet) of the elevation of the top of the rail at the location in-line with the microphone.

(e) Within the test site, the track shall exhibit less than a 2 degree curve or a radius of curvature greater than 873 meters (2,865 feet). This paragraph shall not apply during a stationary test. The track shall be tie and ballast, free of special track work and bridges or trestles.

(f) Measurements shall not be made during precipitation.

(g) The maximum A-weighted fast response sound level observed at the test site immediately before and after the test shall be at least 10 dB(A) below the level measured during the test. For the locomotive and rail car pass-by tests this requirement applies before and after the train containing the rolling stock to be tested has passed. This background sound level measurement shall include the contribution from the operation of the load cell, if any, including load cell contribution during test.

(h) Noise measurements may only be made if the measured wind velocity is 19.3 km/hr (12 mph) or less. Gust wind measurements of up to 33.2 km/hr (20 mph) are allowed.

§ 201.24 Procedures for measurement at a 30 meter (100 feet) distance of the noise from locomotive and rail car operations and locomotive load cell test stands.

(a) *Microphone positions.* (1) The microphone shall be located within the test site according to the specifications given in the test procedures of paragraphs (b), (c) and (d) of this section, and shall be positioned 1.2 meters (4 feet) above the ground. It shall be oriented with respect to the source in accordance with the manufacturer's recommendations.

(2) The observer shall not stand between the microphone and the source whose sound level is being measured.

(b) *Stationary locomotive and locomotive load cell test stand tests.* (1) For stationary locomotive and locomotive load cell test stand tests, the microphone shall be positioned on a line perpendicular to the track at a point 30 meters (100 feet) from the track centerline at the longitudinal midpoint of the locomotive.

(2) The sound level meter shall be observed for thirty seconds after the test throttle setting is established to assure operating stability. The maximum sound level observed during that time shall be utilized for compliance purposes.

(3) Measurement of stationary locomotive and locomotive load cell test stand noise shall be made with all cooling fans operating.

(c) *Rail car pass-by test.* (1) For rail car pass-by tests, the microphone shall be positioned on a line perpendicular to the track 30 meters (100 feet) from the track centerline.

(2) Rail car noise measurements shall be made when the locomotives have passed a distance 152.4 meters (500 feet) or 10 rail cars beyond the point at the intersection of the track and the line which extends perpendicularly from the track to the microphone location, providing any other locomotives are also at least 152.4 meters (500 feet) or 10 rail car lengths away from the measuring point. The maximum sound level observed in this manner which exceeds the noise levels specified in § 201.13 shall be utilized for compliance purposes.

(3) Measurements shall be taken on reasonably well maintained tracks.

(4) Noise levels shall not be recorded if brake squeal is present during the test measurement.

(d) *Locomotive pass-by test.* (1) For locomotive pass-by tests, the microphone shall be positioned on a line perpendicular to the track at a point 30 meters (100 feet) from the track centerline.

(2) The noise level shall be measured as the locomotive approaches and passes by the microphone location. The maximum noise level observed during this period shall be utilized for compliance purposes.

(3) Measurements shall taken on reasonably well maintained tracks.

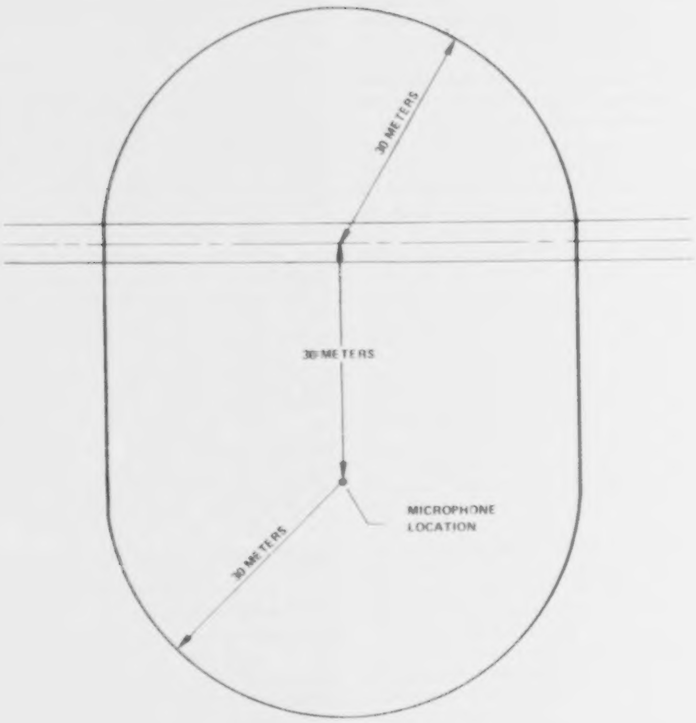

Figure 1 Test Site Clearance Requirement for Stationary Locomotive, Locomotive Pass-by, Rail Car Pass-by, and Locomotive Load Cell Test Stand Tests.

§ 201.25 Measurement location and weather conditions for measurement on receiving property of the noise of retarders, car coupling, locomotive load cell test stands, and stationary locomotives.

(a) Measurements must be conducted only at receiving property measurement locations.

(b) Measurement locations on receiving property must be selected such that no substantially vertical plane surface, other than a residential or commercial unit wall or facility boundary noise barrier, that exceeds 1.2 meters (4 feet) in height is located within 10 meters (33.3 feet) of the microphone and that no exterior wall of a residential or commercial structure is located within 2.0 meters (6.6 feet) of the microphone. If the residential structure is a farm home, measurements must be made 2.0 to 10.0 meters (6.6 to 33.3 feet) from any exterior wall.

(c) No measurement may be made when the average wind velocity during the period of measurement exceeds 19.3 km/hr (12 mph) or when the maximum wind gust velocity exceeds 32.2 km/hr (20 mph).

(d) No measurement may be taken when precipitation, e.g., rain, snow, sleet, or hail, is occurring.

§ 201.26 Procedures for the measurement on receiving property of retarder and car coupling noise.

(a) *Retarders*—(1) *Microphone.* The microphone must be located on the receiving property and positioned at a height between 1.2 and 1.5 meters (4 to 5 feet) above the ground. The microphone must be positioned with respect to the equipment in accordance with the manufacturers' recommendations for Type 1 or 2 performance as appropriate. No person may stand between the microphone and the equipment being measured or be otherwise positioned relative to the microphone at variance with the manufacturers' recommendations for Type 1 or 2 performance as appropriate.

(2) *Data.* The maximum A-weighted sound levels (FAST) for every retarder sound observed during the measurement period must be read from the indicator and recorded. At least 30 consecutive retarder sounds must be measured. The measurement period must be at least 60 minutes and not more than 240 minutes.

(3) *Adjusted average maximum A-weighted sound level.* The energy average level for the measured retarder sounds must be calculated to determine the value of the average maximum A-weighted sound level ($L_{ave\ max}$). This value is then adjusted by adding the adjustment (C) from Table 2 appropriate to the number of measurements divided by the duration of the measurement period (n/T), to obtain the adjusted average maximum A-weighted sound level ($L_{adj\ ave\ max}$) for retarders.

(b) *Car coupling impact*—(1) *Microphone.* The microphone must be located on the receiving property and at a distance of at least 30 meters (100 feet) from the centerline of the nearest track on which car coupling occurs and its sound is measured (that is, either the microphone is located 30 meters (100 feet) from the nearest track on which couplings occur, or all sounds resulting from car coupling impacts that occur on tracks with centerlines located less than 30 meters (100 feet) from the microphone are disregarded). The microphone shall be positioned at a height between 1.2 and 1.5 meters (4 and 5 feet) above the ground, and it must be positioned with respect to the equipment in accordance with the manufacturers' recommendations for Type 1 or 2 performance as appropriate. No person may stand between the microphone and the equipment being measured or be otherwise positioned relative to the microphone at variance with the manufacturers' recommendations for Type 1 or 2 performance as appropriate.

(2) *Data.* The maximum A-weighted sound levels (FAST) for every car coupling impact sound observed during the measurement period must be read from the indicator and recorded. At least 30 consecutive car coupling impact sounds must be measured. The measurement period must be at least 60 minutes and not more than 240 minutes, and must be reported.

TABLE 2—ADJUSTMENT TO $L_{ave\ max}$ TO OBTAIN $L_{adj\ ave\ max}$ FOR RETARDERS AND CAR COUPLING IMPACTS [1]

[n/T = number of measurements/measurement duration (min) C = Adjustment in dB]

0.111 to 0.141	−9
0.142 to 0.178	−8
0.179 to 0.224	−7
0.225 to 0.282	−6
0.283 to 0.355	−5
0.356 to 0.447	−4
0.448 to 0.562	−3
0.563 to 0.708	−2
0.709 to 0.891	−1
0.892 to 1.122	0
1.123 to 1.413	+1
1.414 to 1.778	+2
1.779 to 2.239	+3
2.240 to 2.818	+4
2.819 to 3.548	+5
3.549 to 4.467	+6

[1] $L_{adj\ ave\ max} = L_{ave\ max} + C$ in dB.

Values in Table 2 were calculated from [$C = 10 \log n/T$] with intervals selected to round off values to the nearest whole decibel. The table may be extended or interpolated to finer interval gradations by using this defining equation.

(3) *Adjusted average maximum A-weighted sound level.* The energy average level for the measured car coupling sounds is calculated to determine the average maximum sound level ($L_{ave\ max}$). It is then adjusted by adding the adjustment (C) from Table 2 appropriate to the number of measurements divided by the duration of the measure-

ment period (n/T), to obtain the adjusted average maximum A-weighted sound level ($L_{adj\ ave\ max}$) for car coupling impacts.

§ 201.27 Procedures for: (1) Determining applicability of the locomotive load cell test stand standard and switcher locomotive standard by noise measurement on a receiving property; (2) measurement of locomotive load cell test stands more than 120 meters (400 feet) on a receiving property.

(a) *Microphone.* The microphone must be located at a receiving property measurement location and must be positioned at a height between 1.2 and 1.5 meters (4 and 5 feet) above the ground. Its position with respect to the equipment must be in accordance with the manufacturers' recommendations for Type 1 or 2 performance as appropriate. No person may stand between the microphone and the equipment being measured or be otherwise positioned relative to the microphone at variance to the manufacturers' recommendations for Type 1 or Type 2 performance as appropriate.

(b) *Data.* (1) When there is evidence that at least one of these two types of nearly steady state sound sources is affecting the noise environment, the following measurements must be made. The purpose of these measurements is to determine the A-weighted L_{90} statistical sound level, which is to be used as described in subparagraph (c) below to determine the applicability of the source standards. Before this determination can be made, the measured L_{90} is to be "validated" by comparing the measured L_{10} and L_{99} statistical sound levels. If the difference between these levels is sufficiently small (4 dB or less), the source(s) being measured is considered to be a nearly steady state source.

(2) Data shall be collected by measuring the instantaneous A-weighted sound level (FAST) at a rate of at least once each 10 seconds for a measurement period of at least 15 minutes and until 100 measurements are obtained. The data may be taken manually by direct reading of the indicator at 10 second intervals (±1 second), or by attaching a statistical analyzer, graphic level recorder, or other equivalent device to the sound level meter for a more continuous recording of the instantaneous sound level.

(3) The data shall be analyzed to determine the levels exceeded 99%, 90%, and 10% of the time, i.e., L_{99}, L_{90}, and L_{10}, respectively. The value of L_{90} is considered a valid measure of the A-weighted sound level for the standards in § 201.16 only if the difference between L_{10} and L_{99} has a value of 4 dB or less. If a measured value of L_{90} is not valid for this purpose, measurements may be taken over a longer period to attempt to improve the certainty of the measurement and to validate L_{90}. If L_{90} is valid and is less than the level in applicable standards for these source types, the sources are in compliance. If the measured value of L_{90} is valid and exceeds the initial 65 dB requirement for any of the source types that appear to be affecting the noise environments, the evaluation according to the following paragraph (c) is required.

(c) *Determination of applicability of the standard when L_{90} is validated and is in excess of one or more of the source standards.* The following procedures must be used to determine the compliance of the various source types when L_{90} is validated and in excess of one or more of the applicable standards.

(1) The principal direction of the nearly steady-state sound at the measurement location must be determined, if possible, by listening to the sound and localizing its apparent source(s). If the observer is clearly convinced by this localization process that the sound emanates only from one or both of these two sources, then:

(i) If only stationary locomotive(s), including at least one switcher locomotive, are present, the value of L_{90} is the value of the A-weighted sound level to be used in determining if the 65 dB requirement is exceeded and compliance with the standards in §§ 201.11(c) and 201.12(c) is necessary.

(ii) If only a locomotive load cell test stand and the locomotive being tested are present and operating, the value of L_{90} is the value of the A-weighted sound level to be used in determining applicability of the standard in § 201.16.

(iii) If a locomotive load cell test stand(s) and the locomotive being tested are present and operating with stationary locomotive(s), including at least one switcher locomotive, the value L_{90} minus 3 dB is the value of the A-weighted sound level to be used in determining applicability of the standards in §§ 201.11(c), 201.12(c) and 201.16.

(iv) If a locomotive load cell test stand(s) and the locomotive being tested are present and operating, and a stationary locomotive(s) is present, and if the nearly steady-state sound level is observed to change by 10 dB, coincident with evidence of a change in operation of the locomotive load cell test stand but without apparent change in the location of stationary locomotives, another measurement of L_{90} must be made in accordance with paragraph (b) of this section. If this additional measure of L_{90} is validated and differs from the initial measure of L_{90} by an absolute value of 10 dB or more, then the higher value of L_{90} is the value of the A-weighted sound level to be used in determining applicability of the standard in § 201.16.

(2) In order to accomplish the comparison demonstration of paragraph (c)(3) of this section, when one or more source types is found not to be in compliance with the applicable standard(s), documentation of noise source information shall be necessary. This will include, but not be limited to, the approximate location of all sources of each source type present and the microphone position on a diagram of the particular railroad facility, and the distances between the microphone location and each of the sources must be estimated and reported. Additionally, if other rail or nonrail noise sources are detected, they must be identified and similarly reported.

(3) If it can be demonstrated that the validated L_{90} is less than 5 dB greater than any L_{90} measured at the same receiving property location when the source types that were operating during the initial measurement(s) are either turned off or moved, such that they can no longer be detected, the initial value(s) of L_{90} must not be used for determining applicability to the standards. This demonstration must be made at a time of day comparable to that of the initial measurements and when all other conditions are acoustically similar to those reported in paragraph (c)(2) of this section.

[45 FR 1263, Jan. 4, 1980; 47 FR 14709, Apr. 6, 1982]

§ 201.28 Testing by railroad to determine probable compliance with the standard.

(a) To determine whether it is probably complying with the regulation, and therefore whether it should institute noise abatement, a railroad may take measurements on its own property at locations that:

(1) Are between the source and receiving property

(2) Derive no greater benefit from shielding and other noise reduction features that does the receiving property; and

(3) Otherwise meet the requirements of § 201.25.

(b) Measurements made for this purpose should be in accordance with the appropriate procedures in § 201.26 or § 201.27. If the resulting level is less than the level stated in the standard, then there is probably compliance with the standard.

(c) This procedure is set forth to assist the railroad in devising its compliance plan, not as a substantive requirement of the regulation.

PART 202—MOTOR CARRIERS ENGAGED IN INTERSTATE COMMERCE

Subpart A—General Provisions

Sec.

202.10 Definitions.
202.11 Effective date.
202.12 Applicability.

Subpart B—Interstate Motor Carrier Operations Standards

202.20 Standards for highway operations.
202.21 Standard for operation under stationary test.
202.22 Visual exhaust system inspection.
202.23 Visual tire inspection.

AUTHORITY: Sec. 18, 36 Stat. 1249, 42 U.S.C. 4917(a).

Subpart A—General Provisions

§ 202.10 Definitions.

As used in this part, all terms not defined herein shall have the meaning given them in the Act:

(a) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234)

(b) "Common carrier by motor vehicle" means any person who holds himself out to the general public to engage in the transportation by motor vehicle in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation, whether over regular or irregular routes.

(c) "Contract carrier by motor vehicle" means any person who engages in transportation by motor vehicle of passengers or property in interstate or foreign commerce for compensation (other than transportation referred to in paragraph (b) of this section) under continuing contracts with one person or a limited number of persons either (1) for the furnishing of transportation services through the assignment of motor vehicles for a continuing period of time to the exclusive use of each person served or (2) for the furnishing of transportation services designed to meet the distinct need of each individual customer.

(d) "Cutout or by-pass or similar devices" means devices which vary the exhaust system gas flow so as to discharge the exhaust gas and acoustic energy to the atmosphere without passing through the entire length of the exhaust system, including all exhaust system sound attenuation components.

(e) "dB(A) means the standard abbreviation for A-weighted sound level in decibels.

(f) "Exhaust system" means the system comprised of a combination of components which provides for enclosed flow of exhaust gas from engine parts to the atmosphere.

(g) "Fast meter response" means that the fast dynamic response of the sound level meter shall be used. The fast dynamic response shall comply with the meter dynamic characteristics in paragraph 5.3 of the American National Standard Specification for Sound Level Meters, ANSI S1. 4-1971. This publication is available from the American National Standards Institute, Inc., 1420 Broadway, New York, New York 10018.

(h) "Gross Vehicle Weight Rating" (GVWR) means the value specified by the manufacturer as the loaded weight of a single vehicle.

(i) "Gross Combination Weight Rating" (GCWR) means the value specified by the manufacturer as the loaded weight of a combination vehicle.

(j) "Highway" means the streets, roads, and public ways in any State.

(k) "Interstate commerce" means the commerce between any place in a State and any place in another State or between places in the same State through another State, whether such commerce moves wholly by motor vehicle or partly by motor vehicle and partly by rail, express, water or air. This definition of "interstate commerce" for purposes of these regulations is the same as the definition of "interstate commerce" in section 203(a) of the Interstate Commerce Act. [49 U.S.C. 303(a)]

(l) "Motor carrier" means a common carrier by motor vehicle, a contract carrier by motor vehicle, or a private carrier of property by motor vehicle as those terms are defined by paragraphs (14), (15), and (17) of section 203(a) of the Interstate Commerce Act [49 U.S.C. 303(a)].

(m) "Motor vehicle" means any vehicle, machine, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property, or any combination thereof, but does not include any vehicle, locomotive, or car operated exclusively on a rail or rails.

(n) "Muffler" means a device for abating the sound of escaping gases of an internal combustion engine.

(o) "Open site" means an area that is essentially free of large sound-reflecting objects, such as barriers, walls, board fences, signboards, parked vehicles, bridges, or buildings.

(p) "Private carrier of property by motor vehicle" means any person not included in terms "common carrier by motor vehicle" or "contract carrier by motor vehicle", who or which transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee, when such transportation is for sale, lease, rent or bailment, or in furtherance of any commercial enterprise.

(q) "Sound level" means the quantity in decibles measured by a sound level meter satisfying the requirements of American National Standards Specification for Sound Level Meters S1.4-1971. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018. Sound level is the frequency-weighted sound pressure level obtained with the standardized dynamic characteristic "fast" or "slow" and weighting A, B, or C; unless indicated otherwise, the A-weighting is understood.

[39 FR 38215, Oct. 29, 1974]

§ 202.11 Effective date.

The provisions of Subpart B shall become effective October 15, 1975, except that the provisions of § 202.20(b) and § 202.21(b) of Subpart B shall apply to motor vehicles manufactured during or after the 1986 model year.

[51 FR 852, Jan. 8, 1986]

§ 202.12 Applicability.

(a) The provisions of Subpart B apply to all motor carriers engaged in interstate commerce.

(b) The provisions of Subpart B apply only to those motor vehicles of such motor carriers which have a gross vehicle weight rating or gross combination weight rating in excess of 10,000 pounds, and only when such motor vehicles are operating under the conditions specified in Subpart B.

(c) Except as provided in paragraphs (d) and (e) of this section, the provisions of Subpart B apply to the total sound produced by such motor vehicles when operating under such conditions, including the sound produced by auxiliary equipment mounted on such motor vehicles.

(d) The provisions of Subpart B do not apply to auxiliary equipment which is normally operated only when the transporting vehicle is stationary or is moving at a speed of 5 miles per hour or less. Examples of such equipment include, but are not limited to, cranes, asphalt spreaders, ditch diggers, liquid or slurry pumps, air compressors, welders, and trash compactors.

(e) The provisions of Subpart B do not apply to warning devices, such as horns and sirens; or to emergency equipment and vehicles such as fire engines, ambulances, police vans, and rescue vans, when responding to emergency calls; or to snow plows when in operation.

(f) The provisions of § 202.20(a) and § 202.21(a) of Subpart B apply only to applicable motor vehicles manufactured prior to the 1986 model year.

(g) The provisions of § 202.20(b) and § 202.21(b) apply to all applicable motor vehicles manufactured during or after the 1986 model year.

[39 FR 38215, Oct. 29, 1974, as amended at 51 FR 852, Jan. 8, 1986]

Subpart B—Interstate Motor Carrier Operations Standards

§ 202.20 Standards for highway operations.

(a) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which at any time or under any condition of highway trade, load, acceleration or deceleration generates a sound level in excess of 86dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of 35 MPH or less; or 90 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of more than 35 MPH.

(b) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which at any time or under any condition of highway grade, load, acceleration or deceleration generates a sound level in excess of 83 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of 35 MPH or less; or 87 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of more than 35 MPH.

[39 FR 38215, Oct. 29, 1974, as amended at 51 FR 852, Jan. 8, 1986]

§ 202.21 Standard for operation under stationary test.

(a) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which generates a sound level in excess of 88 dB(A) measured on an open site with fast meter response at 50 feet from the longitudinal centerline of the vehicle, when its engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged. This section shall not apply to any vehicle which is not equipped with an engine speed governor.

(b) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which generates a sound level in excess of 85 dB(A) measured on an open site with fast meter response at 50 feet from the longitudinal centerline of the vehicle when its engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged. This paragraph shall not apply to any vehicle which is not equipped with an engine speed governor.

[39 FR 38215, Oct. 29, 1974, as amended at 51 FR 852, Jan. 8, 1986]

§ 202.22 Visual exhaust system inspection.

No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable unless the exhaust system of such vehicle is (a) free from defects which affect sound reduction; (b) equipped with a muffler or other noise dissipative device; and (c) not equipped with any cut-out, bypass, or similar device.

§ 202.23 Visual tire inspection.

No motor carrier subject to these regulations shall at any time operate any motor vehicle of a type to which this regulation is applicable on a tire or tires having a tread pattern which as originally manufactured, or as newly retreaded, is composed primarily or cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire. This § 202.23 shall not apply to any motor vehicle which is demonstrated by the motor carrier which operates it to be in compliance with the noise emission standard specified for operations on highways with speed limits of more than 35 MPH in § 202.20 of this Subpart B, if the demonstration is conducted at the highway speed limit in effect at the inspection location, or, if speed is unlimited, the demonstration is conducted at a speed of 65 MPH.

[39 FR 38215, Oct. 29, 1974]

PART 203—LOW-NOISE-EMISSION PRODUCTS

Sec.
203.1 Definitions.
203.2 Application for certification.
203.3 Test procedures.
203.4 Low-noise-emission product determination.
203.5 Suitable substitute decision.
203.6 Contracts for low-noise-emission products.
203.7 Post-certification testing.
203.8 Recertification.

AUTHORITY: Sec. 15, Noise Control Act, 1972, Pub. L. 92-574, 86 Stat. 1234.

SOURCE: 39 FR 6670, Feb. 21, 1974, unless otherwise noted.

§ 203.1 Definitions.

(a) As used in this part, any term not defined herein shall have the meaning given it in the Noise Control Act of 1972 (Pub. L. 92-574).

(1) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574).

(2) "Federal Government" includes the legislative, executive, and judicial branches of the Government of the

United States, and the government of the District of Columbia.

(3) "Administrator" means the Administrator of the Environmental Protection Agency.

(4) "Product" means any manufactured article or goods or component thereof; except that such term does not include—

(i) Any aircraft, aircraft engine, propellor or appliance, as such terms are defined in section 101 of the Federal Aviation Act of 1958; or

(ii)(*a*) Any military weapons or equipment which are designed for combat use; (*b*) any rockets or equipment which are designed for research, experimental or developmental work to be performed by the National Aeronautics and Space Administration; or (*c*) to the extent provided by regulations of the Administrator, any other machinery or equipment designed for use in experimental work done by or for the Federal Government.

(5) "Low-Noise-Emission Product Determination" means the Administrator's determination whether or not a product, for which a properly filed application has been received, meets the low-noise-emission product criterion.

(6) "Suitable Substitute Decision" means the Administrator's decision whether a product which the Administrator has determined to be a low-noise-emission product is a suitable substitute for a product or products presently being purchased by the Federal Government.

§ 203.2 Application for certification.

(a) Any person desiring certification of a class or model of product under section 15 of the act shall submit to the Administrator an application for certification. The application shall be completed upon such forms as the Administrator may deem appropriate and shall contain:

(1) A description of the product, including its power source, if any; and

(2) Information pertaining to the test facility for the product establishing that the test facility meets all requirements which EPA may prescribe; and

(3) All noise emission data from the test of the product; and

(4) Data required by the Administrator relative, but not limited to, the following characteristics;

(i) Safety;

(ii) Performance Characteristics;

(iii) Reliability of product and reliability of low-noise-emission features;

(iv) Maintenance;

(v) Operating Costs;

(vi) Conformance with Federa Agency Purchase Specifications; and

(5) Such other information as th Administrator may request.

(b) Specific data requirements relative to paragraph (a)(4) of this sectio will be published separately from th low-noise-emission criterion for tha product or class of products.

(c) The Administrator will, immediately upon receipt of the applicatio for certification, publish in the FEDERAL REGISTER a notice of the receipt o the application. The notice will request written comments and documents from interested parties in support of, or in opposition to, certification of the class or model of produc under consideration.

§ 203.3 Test procedures.

(a) The applicant shall test or cause his product to be tested in accordance with procedures contained in the regulations issued pursuant to section 6 of the act unless otherwise specified.

(b) The Administrator may conduct whatever investigation is necessary, including actual inspection of the product at a place designated by him.

§ 203.4 Low-noise-emission product determination.

(a) The Administrator will, within ninety (90) days after receipt of a properly filed application for certification, determine whether such product is a low-noise-emission product. In doing so, he will determine if the product:

(1) Is one for which a noise source emission standard has been promulgated under section 6 of the act; and

(2) Emits levels of noise in amounts significantly below the levels specified in noise emission standard under regulations under section 6 of the act applicable to that product or class of products;

(3) Is labeled in accordance with regulations issued pursuant to section 8 of the act.

(b) The Administrator will, upon making the determination whether a product is a low-noise-emission product, publish in the FEDERAL REGISTER notice of his determination, and the reasons therefor.

(c) The notice of determination that a product is a low-noise-emission product shall be revocable whenever a change in the low-noise-emission product criterion for what product occurs between determination and decision. Notice of any revocation will be published in the FEDERAL REGISTER, together with a statement of the reasons therefor.

(d) The notice of determination that a product is a low-noise-emission product shall expire upon publication in the FEDERAL REGISTER of the Administrator's notice of a decision that a product will not be certified.

§ 203.5 Suitable substitute decision.

(a) If the Administrator determines that a product is a low-noise-emission product, then within one hundred and eighty (180) days of such determination, in consultation with the appropriate Federal agencies, the Administrator will decide whether such product is a suitable substitute for any class or model or product being purchased by the Federal Government for use by its agencies. Such decision will be based upon the data obtained under § 203.2, the Administrator's evaluation of the data, comments of interested parties, and, as the Administrator deems appropriate, an actual inspection or test of the product at such places and times as the Administrator may designate.

(b) In order to compare the data for any class or model of product with any class or model of product presently being purchased by the Federal Government for which the applicant seeks to have its product substituted, the Administrator will enter into appropriate agreements with other Government agencies to gather the necessary data regarding such class or model.

(c) Immediately upon making the decision as to whether a product determined to be a low-noise-emission product is a suitable substitute for any product or class of products being purchased by the Federal Government for its use, the Administrator shall publish in the FEDERAL REGISTER notice of such decision and the reasons therefor.

(d) If the Administrator decides that the product is a suitable substitute for products being purchased by the Federal Government, he will issue a certificate that the product is a suitable substitute for a product or class of products presently being purchased by the Federal Government and will specify with particularity the product or class of products for which the certified product is a suitable substitute.

(e) Any certification made under this section shall be effective for a period of one year from date of issuance.

§ 203.6 Contracts for low-noise-emission products.

(a) Data relied upon by the Administrator in determining that a product is a certified low-noise-emission product will be incorporated by reference in any contract for the procurement of such product.

(b) A determination of price to the Government of any certified low-noise-emission product will be made by the Administrator of General Services in coordination with the appropriate Federal agencies in accordance with such procedures as he may prescribe and with subsection c(1) of section 15 of the Act.

§ 203.7 Post-certification testing.

The Administrator will, from time to time, as he deems appropriate, test the emissions of noise from certified low-noise-emission products purchased by the Federal Government. If at any time he finds that the noise emission levels exceed the levels on which certification was based, the Administrator shall give the suppliers of such product written notice of this finding, publish such findings in the FEDERAL REGISTER and give the supplier an opportunity to make necessary repairs, adjustments or replacements. If no repairs, adjustments or replacements are made within a period to be set by the

Administrator, he may order the supplier to show cause why the product involved should be eligible for recertification.

§ 203.8 Recertification.

(a) A product for which a certificate has been issued may be recertified for the following year upon reapplication to the Administrator for this purpose upon such forms as the Administrator may deem appropriate.

(b) If the applicant supplies information establishing that:

(1) The data previously submitted continues to describe his product for purpose of certification;

(2) The low-noise-emission product criterion and "suitable substitute" criteria are to be the same during the period recertification is desired; and

(3) No notice has been issued under § 203.7,

then recertification will be made within 30 days after receipt of an appropriate recertification application by the Administrator.

PART 204—NOISE EMISSION STANDARDS FOR CONSTRUCTION EQUIPMENT

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APPENDIX I

AUTHORITY: (42 U.S.C. 4905), 86 Stat. 1237.

SOURCE: 41 FR 2172, Jan. 14, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 204.1 General applicability.

The provisions of this subpart are applicable to all products for which regulations have been published under this part and which are manufactured after the effective date of such regulations.

§ 204.2 Definitions.

(a) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act.

(1) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234).

(2) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(3) "Agency" means the United States Environmental Protection Agency.

(4) "Export exemption" means an exemption from the prohibitions of section 10 (a) (1), (2), (3), and (4) of the Act, granted by statute under section 10(b)(2) of the Act for the purpose of exporting regulated products.

(5) "National security exemption" means an exemption from the prohibitions of section 10(a) (1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of national security.

(6) [Reserved]

(7) "Testing exemption" means an exemption from the prohibitions of section 10(a) (1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of research, investigations, studies, demonstrations, or training, but not including national security where lease or sale of the exempted product is involved.

(8) "Warranty" means the warranty required by section 6(c)(1) of the Act.

(9) "Tampering" means those acts prohibited by section 10(a)(2) of the Act.

(10) "Maintenance instructions" means those instructions for maintenance, use, and repair, which the Administrator is authorized to require pursuant to section 6(c)(1) of the Act.

(11) "Type I Sound Level Meter" means a sound level meter which meets the Type I requirements of American National Standard Specification S1.4-1971 for sound level meters. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(12) "dBA" is the standard abbreviation for A-weighted sound level in decibels.

(13) "Reasonable assistance" means providing timely and unobstructed access to test products or products and records required by this part and opportunity for copying such records or testing such test products.

(14) "Slow meter response" means the meter ballistics of meter dynamic characteristics as specified by American National Standard S1.4-1971 or subsequent approved revisions.

(15) "Sound level" means the weighted sound pressure level measured by the use of a metering characteristic and weighing A, B, or C as specified in American National Standard Specification for Sound Level Meters S1.4-1971 or subsequent approved revision. The weighting employed must be specified, otherwise A-weighting is understood.

(16) "Sound pressure level" means, in decibels, 20 times the logarithm to the base ten of the ratio of a sound pressure to the reference sound pressure of 20 micropascals (20 micronewtons per square meter). In the absence of any modifier, the level is understood to be that of a root-mean-square pressure.

(17) "Product" means any construction equipment for which regulations have been promulgated under this part and includes "test product."

(18) "Test product" means any product that is required to be tested pursuant to this part.

[41 FR 2172, Jan. 14, 1976, as amended at 47 FR 57711, Dec. 28, 1982]

§ 204.3 Number and gender.

As used in this part, words in the singular shall be deemed to import the plural, and words in the masculine gender shall be deemed to import the feminine and vice versa, as the case may require.

§ 204.4 Inspection and monitoring.

(a) Any inspection or monitoring activities conducted under this section shall be for the purpose of determining (1) whether test products are being selected and prepared for testing in accordance with the provisions of these regulations, (2) whether test product testing is being conducted in accordance with these regulations, and (3) whether products being produced for distribution into commerce comply with these regulations.

(b) The Director, Noise Enforcement Division, may request that a manufacturer subject to this part admit an EPA Enforcement Officer during operating hours to any of the following:

(1) Any facility or site where any product to be distributed into commerce is manufactured, assembled, or stored;

(2) Any facility or site where any tests conducted pursuant to this part or any procedures or activities connected with such tests are or were performed; and

(3) Any facility or site where any test product is present.

(c)(1) An EPA Enforcement Officer, once admitted to a facility or site, will not be authorized to do more than:

(i) To inspect and monitor test product manufacture and assembly, selection, storage, preconditioning, noise emission testing, and maintenance.

and to verify correlation or calibration of test equipment;

(ii) To inspect products prior to their distribution in commerce;

(iii) [Reserved]

(iv) To inspect and photograph any part or aspect of any such product and any component used in the assembly thereof that are reasonably related to the purpose of his entry.

(v) To obtain from those in charge of the facility or site such reasonable assistance as he may request to enable him to carry out any proper function listed in this section.

(2) [Reserved]

(3) The provisions of this section apply whether the facility or site is owned or controlled by the manufacturer or by one who acts for the manufacturer.

(d) For purposes of this section:

(1) An "EPA Enforcement Officer" is an employee of the EPA Office of Enforcement who displays upon arrival at a facility or site the credentials identifying him as such an employee and a letter signed by the Director, Noise Enforcement Division designating him to make the inspection.

(2) Where test product storage areas or facilities are concerned, "operating hours" shall mean all times during which personnel other than custodial personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (d)(2) of this section are concerned, "operating hours" shall mean all times during which product manufacture or assembly is in operation or all times during which product testing or maintenance, production, or compilation of records is taking place, or any other procedure or activity related to selective enforcement audit testing or to product manufacture or assembly is being carried out.

(e) The manufacturer shall admit to a facility or site an EPA Enforcement Officer who presents a warrant authorizing entry. In the absence of such warrant, entry to any facility or site under this section will be only upon the consent of the manufacturer.

(1) It is not a violation of this regulation or the Act for any person to refuse entry without a warrant.

(2) The Administrator or his designee may proceed ex parte to obtain a warrant whether or not the manufacturer has refused entry.

(42 U.S.C. 4905, 4912, 86 Stat. 1237-1239, 1244)

[41 FR 2172, Jan. 14, 1976, as amended at 43 FR 27989, June 28, 1978; 47 FR 57711, Dec. 28, 1982]

§ 204.5 Exemptions.

§ 204.5–1 Testing exemption.

(a) A new product intended to be used solely for research, investigations, studies, demonstrations or training, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of sections 10(a)(1), (2), (3), and (5) of the Act.

(b) No request for a testing exemption is required.

(c) For purposes of section 11(d) of the Act any testing exemption shall be void ab initio with respect to each new product, originally intended for research, investigations, studies, demonstrations, or training, but distributed in commerce for other uses.

[47 FR 57711, Dec. 28, 1982]

§ 204.5–2 National security exemptions.

(a) A new product which is produced to conform with specifications developed by a national security agency, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of sections 10(a) (1), (2), (3), and (4) of the Act.

(b) No request for a national security exemption is required.

(c) For purposes of section 11(d) of the Act, any national security exemption shall be void ab initio with respect to each new product, originally intended to be produced to conform with specifications developed by a national security agency but distributed in commerce for other uses.

(d) Any manufacturer or person subject to the liabilities of section 11(a) with respect to any product originally intended for a national security agency, but distributed in commerce for use in any State, may be excluded from the application of section 11(a) with respect to such product based upon a showing that such manufacturer:

(1) Had no knowledge of such product being distributed in commerce for use in any state; and

(2) Made reasonable efforts to ensure that such products would not be distributed in commerce for use in any State. Such reasonable efforts would include investigation, prior dealings, contract provisions, etc.

[47 FR 57711, Dec. 28, 1982]

§ 204.5-3 Export exemptions.

(a) A new product intended solely for export, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of section 10(a), (1), (2), (3), and (4) of the Act.

(b) No request for an export exemption is required.

(c) For purposes of section 11(d) of the Noise Control Act, any export exemption under section 10(b)(2) shall be void ab initio with respect to each new product intended solely for export which is distributed in commerce for use in any state.

(d) The Administrator will not institute proceedings against any manufacturer pursuant to section 11(d)(1) of the Noise Control Act with respect to any product, originally intended for export, but distributed in commerce for use in any state, if it is demonstrated to the Administrator's satisfaction that:

(1) The manufacturer had no knowledge that such product would be distributed in commerce for use in any state; and

(2) The manufacturer made reasonable efforts to ensure that such product would not be distributed in commerce for use in any state. Such reasonable efforts would include consideration of prior dealings with any person which resulted in introduction into commerce of a product manufactured for export only, investigation of prior instances known to the manufacturer of introduction into commerce of a product manufactured for export only, and contract provisions which minimize the probability of introduction into commerce of a product manufactured for export only.

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61454, Dec. 5, 1977. Redesignated at 47 FR 57711, Dec. 28, 1982]

Subpart B—Portable Air Compressors

§ 204.50 Applicability.

The provisions of this subpart shall apply to portable air compressors which are manufactured after the effective dates specified in § 204.52, and which are "New Products" as defined in the Act. These provisions apply only to portable air compressors with a rated capacity equal to or above 75 cubic feet per minute which deliver air at pressures greater than 50 psig. The provisions do not apply to the pneumatic tools or equipment that the portable air compressor is designed to power.

§ 204.51 Definitions.

(a) "Portable air compressor" or "compressor" means any wheel, skid, truck, or railroad car mounted, but not self-propelled, equipment designed to activate pneumatic tools. This consists of an air compressor (air end), and a reciprocating rotary or turbine engine rigidly connected in permanent alignment and mounted on a common frame. Also included are all cooling, lubricating, regulating, starting, and fuel systems, and all equipment necessary to constitute a complete, self-contained unit with a rated capacity of 75 cfm or greater which delivers air at pressures greater than 50 psig, but does not include any pneumatic tools themselves.

(b) "Maximum Rated Capacity" means that the portable air compressor, operating at the design full speed with the compressor on load, delivers its rated cfm output and pressure, as defined by the manufacturer.

(c) "Model year" means the manufacturer's annual production period which includes January 1 of such calendar year; Provided, that if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

(d) "Compressor configuration" means the basic classification unit of a manufacturer's product line and is comprised of compressor lines, models or series which are identical in all material respects with regard to the parameters listed in § 204.55-3.

(e) "Category" means a group of compressor configurations which are identical in all aspects with respect to the parameters listed in paragraph (c)(1)(i) of § 204.55-2.

(f) [Reserved]

(g) "Noise emission test" means a test conducted pursuant to the measurement methodology specified in § 204.54.

(h) "Inspection Criteria" means the rejection and acceptance numbers associated with a particular sampling plan.

(i) "Acceptable Quality Level (AQL)" means the maximum percentage of failing compressors that, for purposes of sampling inspection can be considered satisfactory as a process average.

(j) "Batch" means the collection of compressors of the same category or configuration, as designated by the Administrator in a test request, from which a batch sample is to be randomly drawn and inspected to determine conformance with the acceptability criteria.

(k) "Batch sample" means the collection of compressors that are drawn from a batch.

(l) "Batch sample size" means the number of compressors of the same category or configuration which is randomly drawn from the batch sample and which will receive emissions tests.

(m) "Test sample" means the collection of compressors from the same category or configuration which is randomly drawn from the batch sample and which will receive emissions tests.

(n) "Batch size" means the number, as designated by the Administrator in the test request, of compressors of the same category or configuration in a batch.

(o) "Test sample size" means the number of compressors of the same configuration in a test sample.

(p) "Acceptable of a batch" means that the number of non-complying compressors in the batch sample is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(q) "Rejection of a batch" means that the number of non-complying compressors in the batch sample is greater than or equal to the rejection number as determined by the appropriate sampling plan.

(r) "Acceptance of a batch sequence" means that the number of rejected batches in the sequence is less than or equal to the sequence acceptable number as determined by the appropriate sampling plan.

(s) "Rejection of a batch sequence" means that the number of rejected batches in a sequence is greater than or equal to the sequence rejection number as determined by the appropriate sampling plan.

(t) "Shift" means the regular production work period for one group of workers.

(u) "Failing compressor" means that the measured noise emissions of the compressor, when measured in accordance with the applicable procedure, exceeds the applicable standard.

(v) "Acceptance of a compressor" means that the measured noise emissions of the compressor, when measured in accordance with the applicable procedure, conforms to the applicable standard.

(w) "Test Compressor" means a compressor used to demonstrate compliance with the applicable noise emissions standard.

(x) "Tampering" means those acts prohibited by section 10(a)(2) of the Act.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92-574, 86 Stat. 1244; (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 41635, Aug. 18, 1977; 47 FR 57711, Dec. 28, 1982]

§ 204.52 Portable air compressor noise emission standard.

(a) Effective January 1, 1978, portable air compressors with maximum rated capacity of less than or equal to 250 cubic feet per minute (cfm) shall not produce an average sound level in excess of 76 dBA when measured and evaluated according to the methodology provided by this regulation.

Effective July 1, 1978, portable air compressors with maximum rated capacity greater than 250 cfm shall not produce an average sound level in excess of 76 dBA when measured and evaluated according to the methodology provided by this regulation.

(b) In-Use Standard. [Reserved]

(c) Low Noise Emission Product. [Reserved]

§ 204.54 Test procedures.

(a) *General.* This section prescribes the conditions under which noise emission standard compliance Selective Enforcement Auditing or Testing by the Administrator must be conducted and the measurement procedures that must be used to measure the sound level and to calculate the average sound level of portable air compressors on which the test is conducted.

(b) *Test site description.* The location for measuring noise employed during noise compliance testing must consist of an open site above a hard reflecting plane. The reflecting plane must consist of a surface of sealed concrete or sealed asphalt and must extend one (1) meter beyond each microphone location. No reflecting surface, such as a building, signboard, hillside, etc., shall be located within 10 meters of a microphone location.

(c) *Measurement equipment.* The measurement equipment must be used during noise standard compliance testing and must consist of the following or its equivalent:

(1) A sound level meter and microphone system that conform to the Type I requirements of American National Standard (ANS) S1.4-1971, "Specification for Sound Level Meters," and to the requirements of the International Electrotechnical Commission (IEC) Publication No. 179, "Precision Sound Level Meters."

(2) A windscreen must be employed with the microphone during all measurements of portable air compressor noise when the wind speed exceeds 11 km/hr. The windscreen shall not affect the A-weighted sound levels from the portable air compressor in excess of ±0.5 dB.

(3) The entire acoustical instrumentation system including the microphone and cable shall be calibrated before each test series and confirmed afterward. A sound level calibrator accurate to within ±0.5 dB shall be used. A calibration of the instrumentation shall be performed at least annually using the methodology of sufficient precision and accuracy to determine compliance with ANS S1.4-1971 and IEC 179. This calibration shall consist, at a minimum, of an overall frequency response calibration and an attenuator (gain control) calibration plus a measurement of dynamic range and instrument noise floor.

(4) An anemometer or other device accurate to within ±10 percent shall be used to measure wind velocity.

(5) An indicator accurate to within ±2 percent shall be used to measure portable air compressor engine speed.

(6) A gauge accurate to within ±5 percent shall be used to measure portable compressor air pressure.

(7) A metering device accurate to within ±10 percent shall be used to measure the portable air compressor compressed air volumetric flow rate.

(8) A barometer for measuring atmospheric pressure accurate to within ±5 percent.

(9) A thermometer for measuring temperature accurate to within ±1 degree.

(d) *Portable air compressor operation.* The portable air compressor must be operated at the design full speed with the compressor on load, delivering its rated flow and output pressure, during noise emission standard compliance testing. The air discharge shall be provided with a resistive loading such that no significant pressure drop or throttling occurs across the compressor discharge valve. The air discharge shall be piped clear of the test area or fed into an effective silencer. The sound pressure level due to the air discharge shall be at least 10 dB below the sound pressure level generated by the portable air compressor.

(e) *Test conditions.* Noise standard compliance testing must be carried out under the following conditions:

(1) No rain or other precipitation.

(2) No wind above 19 km/hr.

(3) No observer located within 1 meter, in any direction, of any microphone location, nor between the test unit and any microphone,

(4) Portable air compressor sound levels, at each microphone location, 10 dB or greater than the background sound level,

(5) The machine shall have been warmed up and shall be operating in a stable condition as for continuous service and at its maximum rated capacity. All cooling air vents in the engine/compressor enclosure, normally open during operation, shall be fully open during all sound level measurements. Service doors that should be closed during normal operation (at any and all ambient temperatures) shall be closed during all sound level measurements.

(f) *Microphone locations.* Five microphone locations must be employed to acquire portable air compressor sound levels to test for noise standard compliance. A microphone must be located 7±.1 meters from the right, left, front, and back sides and top of the test unit. The microphone position to the right, left, front, and back sides of the test unit must be located 1.5±.1 meters above the reflecting plane.

(g) *Data required.* The following data must be acquired during noise emission standard compliance testing:

(1) A-weighted sound level at one microphone location prior to operation of the test unit and at all microphone locations during test unit operations, as defined in paragraph (d) of this section.

(2) Portable air compressor engine speed.

(3) Portable air compressor compressed gas pressure.

(4) Portable air compressor flow rate.

(5) All other data contained on Appendix I, Table IV.

(h) *Calculation of average sound level.* The average A-weighted sound level from measurements at the specified microphone locations must be calculated by the following method:

$L = 10 \log (1/5[\text{Antilog } L_1/10 + \text{Antilog } L_2/10 + \text{Antilog } L_3/10 + \text{Antilog } L_4/10 + \text{Antilog } L_5/10])$

Where:

L = The average A-weighted sound level (in decibels)

L^1 = The A-weighted sound level (in decibels) at microphone position 1

L^2 = The A-weighted sound level (in decibels) at microphone position 2

L^3 = The A-weighted sound level (in decibels) at microphone position 3

L^4 = The A-weighted sound level (in decibels) at microphone position 4

L^5 = The A-weighted sound level (in decibels) at microphone position 5

(i) The Administrator may approve applications from manufacturers of portable air compressors for the approval of test procedures which differ from those contained in this part so long as the alternate procedures have been demonstrated to correlate with the prescribed procedure. To be acceptable, alternate testing procedures shall be such that the test results obtained will identify all those test units which would not comply with the noise emission limit prescribed in § 204.52 when tested in accordance with the procedures contained in § 204.54(a) through (h). Tests conducted by manufacturers under approved alternate procedures may be accepted by the Administrator for all purposes.

(j) *Presentation of information.* All information required by this section may be recorded using the format recommended on the Noise Data Sheet shown in Appendix I, Table IV.

[41 FR 2172, Jan. 14, 1976, as amended at 41 FR 8347, Feb. 26, 1976; 47 FR 57711, Dec. 28, 1982]

§ 204.55 Requirements.

[47 FR 57711, Dec. 28, 1982]

§ 204.55-1 General standards.

(a) Every new compressor manufactured for distribution in commerce in the United States which is subject to the standards prescribed in this subpart and not exempted in accordance with § 204.5:

(1) Shall be labeled in accordance with the requirements of § 204.55-4.

(2) Shall conform to the applicable noise emission standard established in § 204.52

[41 FR 2172, Jan. 14, 1976, as amended at 47 FR 57711, Dec. 28, 1982]

§ 204.55-2 Requirements.

(a)(1) Prior to distribution in commerce, compressors of a specific configuration must verify such configurations in accordance with this subpart.

(2) [Reserved]

(3) At any time with respect to a configuration under this subpart, the Administrator may require that the manufacturer ship test compressors to an EPA test facility in order for the Administrator to perform the tests required for production verification.

(b) The requirements for purposes of testing by the Administrator and Selective Enforcement Auditing consist of:

(1) Testing in accordance with § 204.54 of a compressor selected in accordance with § 204.57-2; and

(2) Compliance of the test compressor with the applicable standards when tested in accordance with § 204.54.

(c)(1) In lieu of testing compressors of every configuration, as described in paragraph (b) of this section, the manufacturer may elect to verify the configuration based on representative testing, the requirements of which consist of:

(i) Grouping configurations into a category where each category will be determined by a separate combination of at least the following parameters (a manufacturer may use more parameters):

(A) Engine type.

(*1*) Gasoline—two stroke cycle

(*2*) Gasoline—four stroke cycle

(*3*) Diesel—two stroke cycle

(*4*) Diesel—four stroke cycle

(*5*) Rotary—Wankel

(*6*) Turbine

(*7*) Other

(B) Engine manufacturer

(C) Compressor delivery rate (at rated pressure)

(ii) Identifying the configuration within each category which emits the highest sound level in dBA based on best technical judgment, emission test data, or both.

(iii) Testing in accordance with § 204.54 selected in accordance with § 204.57-2 which must be a compressor of the configuration which is identified pursuant to paragraph (c)(1)(iii) of this section as having the highest sound level (estimated or actual) within the category.

(iv) Compliance of the test compressor with applicable standards when tested in accordance with § 204.54.

(2) Where the requirements of paragraph (c)(1) of this section are complied with, all those configurations contained within a category are considered represented by the tested compressor.

(3) Where the manufacturer tests a compressor configuration which has not been determined as having the highest sound level of a category, but all other requirements of paragraph (c)(1) of this section are complied with, all those configurations contained within that category which are determined to have sound levels no greater than the tested compressor are considered to be represented by the tested compressor: However, a manufacturer must for purposes of Testing by the Administrator and Selective Enforcement Auditing verify according to the requirements of paragraph (b)(1) and/or (c)(1) of this section any configurations in the subject category which have a higher sound level than the compressor configuration tested.

(d) A manufacturer may elect for purposes of Testing by the Administrator and Selective Enforcement Auditing to use representative testing, pursuant to paragraph (c) of this section, all or part of his product line.

(e) The manufacturer may, at his option, proceed with any of the following alternatives with respect to any compressor determined not in compliance with applicable standards:

(1) In the case of representative testing, a new test compressor from another configuration must be selected according to the requirements of paragraph (c) of this section in order to verify the configurations represented by the non-compliant compressor.

(2) Modify the test compressor and demonstrate by testing that it meets applicable standards. The manufacturer must modify all production compressors of the same configuration in the same manner as the test compressor before distribution into commerce.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92-574, 86 Stat. 1244; (42 U.S.C. 4912); 42

U.S.C. 4905; 86 Stat. 1237 and secs. 6, 10, 11, 13, Pub. L. 92-574, 86 Stat. 1234 (42 U.S.C. 4905, 4909, 4910, 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61455, Dec. 5, 1977; 47 FR 57711, Dec. 28, 1982; 49 FR 26738, June 29, 1984]

§ 204.55-3 Configuration identification.

(a) A separate compressor configuration shall be determined by each combination of the following parameters:

(1) The compressor type (screw, sliding vane, etc.).

(2) Number of compressor stages.

(3) Maximum pressure (psi).

(4) Air intake system of compressor:

(i) Number of filters;

(ii) Type of filters.

(5) The engine system:

(i) Number of cylinders and configuration (L-6, V-8, V-12);

(ii) Displacement;

(iii) Horsepower;

(iv) Full load rpm.

(6) Type cooling system, e.g., air cooled, water cooled.

(7) Fan:

(i) Diameter;

(ii) Maximum fan rpm.

(8) The compressor enclosure:

(i) Height, length, and width;

(ii) Acoustic material manufacturer, type, part number.

(9) The induction system (engine):

(i) Natural;

(ii) Turbocharged.

(10) The muffler:

(i) Manufacturer;

(ii) Manufacturer part number;

(iii) Quantity of mufflers used;

(11) Category parameters listed at § 204.55-2.

§ 204.55-4 Labeling.

(a)(1) The manufacturer of any compressor subject to the standards prescribed in § 204.52 shall, at the time of manufacture, affix a permanent, legible label, of the type and in the manner described below, containing the information hereinafter provided, to all such compressors to be distributed in commerce.

(2) The label shall be permanently attached, in a readily visible position, on the compressor enclosure.

(3) The label shall be affixed by the compressor manufacturer, who has verified such compressor, in such a manner that it cannot be removed without destroying or defacing the label, and shall not be affixed to any equipment that is easily detached from such compressor.

(4) Labels for compressors not manufactured solely for use outside the United States shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(i) The label heading: Compressor Noise Emission Control Information;

(ii) Full corporate name and trademark of manufacturer;

(iii) Date of manufacture, which may consist of a serial number or code in those instances where records are specified and maintained.

(iv) The statement:

> This Compressor Conforms to U.S. E.P.A. Regulations for Noise Emissions Applicable to Portable Air Compressors. The following acts or the causing thereof by any person are prohibited by the Noise Control Act of 1972:
>
> (A) The removal or rendering inoperative, other than for the purpose of maintenance, repair, or replacement, of any noise control device or element of design (listed in the owner's manual) incorporated into this compressor in compliance with the Noise Control Act;
>
> (B) The use of this compressor after such device or element of design has been removed or rendered inoperative.

(b) Compressors manufactured solely for use outside the United States shall be clearly labeled "For Export Only."

(Secs. 6, 13, Pub. L. 92-574, (42 U.S.C. 4912); 42 U.S.C. 4905; 86 Stat. 1237 and secs. 6, 10, 11, 13, Pub. L. 92-574, 86 Stat. 1234 (42 U.S.C. 4905, 4909, 4910, 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61455, Dec. 5, 1977. Redesignated at 47 FR 57712, Dec. 28, 1982, and amended at 49 FR 26738, June 29, 1984]

§ 204.56 Testing by the Administrator.

(a)(1) The Administrator may require that any compressor tested or scheduled to be tested pursuant to these regulations or any other untested compressors be submitted to him, at such place and time as he may designate, for the purpose of conducting tests in accordance with the test procedures described in § 204.54 to determine whether such compressors conform to applicable regulations.

(2) The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment of the type required by these regulations shall be made available by the manufacturer for test operations. The Administrator may conduct such tests with his own equipment, which shall be equal to or exceed the performance specifications of the instrumentation or equipment specified by the Administrator in these regulations.

(b)(1) If, based on tests conducted by the Administrator or other relevant information, the Administrator determines that the test facility does not meet the requirements of § 204.54-1 (a) and (b) he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) The manufacturer may at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section request a hearing conducted in accordance with 5 U.S.C 554 on the issue of whether his test facility was in conformance. Such notice will not take effect until 15 days after receipt by the manufacturer, or if a hearing is requested under this paragraph, until adjudication by the hearing examiner.

(3) After any notification issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from such test facility will be acceptable for purposes of this part.

(4) The manufacturer may request in writing that the Administrator reconsider this determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(5) The Administrator will notify the manufacturer of his determination and an explanation of the reasons underlying it with regard to the requalification of the test facility within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section.

(Secs. 6, 13, Pub. L. 92-574 (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61455, Dec. 5, 1977]

§ 204.57 Selective enforcement auditing.

§ 204.57-1 Test request.

(a) The Administrator will request all testing under this subpart by means of a test request addressed to the manufacturer.

(b) [Reserved]

(c) The test request will specify the compressor category or configuration selected for testing, the batch from which sampling is to begin, for testing and the batch size, the manufacturer's plant or storage facility from which the compressors must be selected, and the time at which compressors must be selected. The test request will also provide for situations in which the selected configuration or category is unavailable for testing. The test request may include an alternative category or configuration selected for testing in the event that compressors of the first specified category or configuration are not available for testing because the compressors are not being manufactured at the specified plant and/or are not being manufactured during the specified time or not being stored at the specified plant or storage facility.

(d) Any manufacturer shall, upon receipt of the test request, select and test a batch sample of compressors from two consecutively produced batches of the compressor category or configurations specified in the test request in accordance with these regulations and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer pursuant to a test request shall be initiated within such period as is specified in the test request; Except, that such initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions in any 24-hour period do not permit testing: *Provided*, That ambient test site weather conditions for that period are recorded.

(2) The manufacturer shall complete noise emission testing on a minimum of five compressors per day, unless otherwise provided for by the Admin-

istrator or unless ambient test site conditions only permit the testing of a lesser number: *Provided*, That ambient test site weather conditions for that period are recorded.

(3) The manufacturer will be allowed 24 hours to ship compressors from a batch sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant; Except, that the Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease to distribute into commerce compressors of a specified category or configuration being manufactured at a particular facility if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator pursuant to this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease-to-distribute order shall not be issued under paragraph (f) of this section if such refusal is caused by conditions and circumstances outside the control of the manufacturer which render it impossible to comply with the provisions of a test request or any other requirements of this section. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any such order shall be issued only after a notice and opportunity for a hearing in accordance with section 554 of Title 5 of the United States Code.

(Secs. 6, 11 and 13, Noise Control Act, Pub. L. 92-574, 86 Stat. 1244; (42 U.S.C. 4910 and 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 41635, Aug. 18, 1977; 42 FR 61455, Dec. 5, 1977; 47 FR 57712, Dec. 28, 1982]

§ 204.57-2 Test compressor sample selection.

(a) Compressors comprising the batch sample which are required to be tested pursuant to a test request in accordance with this subpart will be randomly selected from a batch of compressors of the category or configuration specified in the test request. The random selection will be achieved by sequentially numbering all of the compressors in the batch and then using a table of random numbers to select the number of compressors, as specified in paragraph (c) of this section, based on the batch size designated by the Administrator in the test request. An alternative selection plan may be used by a manufacturer: *Provided*, That such a plan is approved by the Administrator.

(b) The Acceptable Quality Level is 10 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix I, Table II.

(c) The appropriate batch sample size will be determined by reference to Appendix I, Tables I and II. A code letter is obtained from Table I based on the batch size designated by the Administrator in a test request. The batch sample size will be equal to the maximum cumulative sample size as listed in Table II for the appropriate code letter obtained from Table I plus an additional ten percent rounded off to the next highest number.

(d) Individual compressors comprising the test sample will be randomly selected from the batch sample using the same random selection plan as in paragraph (a) of this section. Test sample size will be determined by entering Table II.

(e) The test compressor of the category or configuration selected for testing shall have been assembled by the manufacturer for distribution in commerce using the manufacturers normal production process.

(f) Unless otherwise indicated in the test request, the manufacturer will select the batch sample from the production batch next scheduled after receipt of the test request of the category or configuration specified in the test request.

(g) Unless otherwise indicated in the test request, the manufacturer shall select the compressors designated in the test request for testing.

(h) At their discretion, EPA Enforcement Officers, rather than the manufacturer, may select the compressors designated in the test request.

(i) The manufacturer will keep on hand all compressors in the batch sample until such time as the batch is accepted or rejected in accordance with § 204.57-6; Except, that compressors actually tested and found to be in conformance with these regulations need not be kept.

§ 204.57-3 Test compressor preparation.

(a) Prior to the official test, the test compressor selected in accordance with § 204.57-2 shall not be prepared, tested, modified, adjusted, or maintained in any manner unless such adjustments, preparations, modifications and/or tests are part of the manufacturer's prescribed manufacturing and inspection procedures and are documented in the manufacturer's internal compressor assembly and inspection procedures or unless such adjustments and/or tests are required or permitted under this subpart or are approved in advance by the Administrator. The manufacturer may perform adjustments, preparations, modifications and/or tests normally performed by a dealer to prepare the compressor for delivery to a customer or the adjustments, preparations, modifications and/or tests normally performed at the port-of-entry by the manufacturer to prepare the compressor for delivery to a dealer or customer.

(b) Equipment of fixtures necessary to conduct the test may be installed on the compressor: *Provided*, That such equipment of fixtures shall have no effect on the noise emissions of the compressor, as determined by the appropriate measurement methodology.

(c) In the event of compressor manfunction (i.e., failure to start, misfiring cylinder, etc.), the manufacturer may perform the maintenance necessary to enable the compressor to operate in a normal manner.

(d) No quality control, testing, assembly, or selection procedures shall be used on the completed test compressor or any portion thereof, including parts and subassemblies, that will not normally be used during the production and assembly of all other compressors of that category which will be distributed in commerce, unless such procedures are required or permitted under this subpart or are approved in advance by the Administrator.

[47 FR 57712, Dec. 28, 1982]

§ 204.57-4 Testing.

(a) The manufacturer shall conduct one valid test in accordance with the test procedures specified in § 204.54 for each compressor selected for testing pursuant to this subpart.

(b) No maintenance will be performed on test compressors, except as provided for by § 204.57-3. In the event a compressor is unable to complete the emission test, the manufacturer may replace the compressor. Any replacement compressor will be a production compressor of the same configuration, and the replacement compressor will be randomly selected from the batch sample and will be subject to all the provisions of these regulations.

§ 204.57-5 Reporting of test results.

(a)(1) The manufacturer shall submit a copy of the test report for all testing conducted pursuant to § 204.57 at the conclusion of each twenty-four hour period during which testing is done.

(2) For each test conducted the manufacturer will provide the following information:

(i) Configuration and category identification, where applicable.

(ii) Year, make, assembly date, and model of compressor.

(iii) Compressor serial number.

(iv) Test results by serial numbers

(3) The first test report for each batch sample will contain a listing of all serial numbers in that batch.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) Within five days after completion of testing of all compressors in a batch sample, the manufacturer shall submit to the Administrator a final report which will include the information required by the test request in the format as stipulated, in addition to the following:

(1) The name, location, and description of the manufacturer's noise test facilities which meet the specifications of § 204.54 and were utilized to conduct testing reported pursuant to this section; except, that a test facility that has been described in a previous submission under this subpart need not be described again but must be identified as such.

(2) A description of the random compressor selection method used, referencing any tables of random numbers that were used, and the name of the person in charge of the random number selection.

(3) The following information for each test conducted:

(i) The completed data sheet required by § 204.54 for all noise emission tests including, for each invalid test, the reason for invalidation.

(ii) A complete description of any modification, repair, preparation, maintenance, and/or testing which was performed on the test compressor and will not be performed on all other production compressors.

(iii) The reason for the replacement, where a replacement compressor was authorized by the Administrator, and, if any, the test results for replaced compressors.

(4) The following statement and endorsement:

> This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. All testing for which data is reported herein was conducted in strict conformance with applicable regulations under 40 CFR Part 204 *et seq.* All the data reported herein are a true and accurate representation of such testing. All other information reported herein is, to the best of (company) knowledge true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.

____

(authorized representative)

(d) All information required to be forwarded to the Administrator pursuant to this section shall be addressed to Director, Noise Enforcement Division (EN–387), U.S. Environmental Protection Agency, Washington, DC 20460.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92–574, 86 Stat. 1244; (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 41635, Aug. 18, 1977; 43 FR 38705, Aug. 30, 1978]

§ 204.57–6 Acceptance and rejection of batches.

(a) A failing compressor is one whose measured sound level is in excess of the applicable noise emission standard.

(b) The batch from which a batch sample is selected will be accepted or rejected based upon the number of failing compressors in the batch sample. A sufficient number of test samples will be drawn from the batch sample until the cumulative number of failing compressors is less than or equal to the acceptance number or greater than or equal to the rejection number appropriate for the cumulative number of compressors tested. The acceptance and rejection numbers listed in Appendix I, Table II at the appropriate code letter obtained according to § 204.57–2 will be used in determining whether the acceptance or rejection of a batch has occurred.

(c) Acceptance or rejection of a batch takes place when a decision is made on the last compressor required to make a decision under paragraph (b) of this section.

§ 204.57–7 Acceptance and rejection of batch sequence.

(a) The manufacturer will continue to inspect consecutive batches until the batch sequence is accepted or rejected. The batch sequence will be accepted or rejected based upon the number of rejected batches. A sufficient number of consecutive batches will be inspected until the cumulative number of rejected batches is less than or equal to the sequence acceptance number or greater than or equal to the sequence rejection number appropriate for the cumulative number of batches inspected. The acceptance and rejection numbers listed in Appendix I, Table III at the appropriate code letter obtained according to § 204.57-2 will be used in determining whether the acceptance or rejection of a batch sequence has occurred.

(b) Acceptance or rejection of a batch sequence takes places when the decision is made on the last compressor required to make a decision under paragraph (a) of this section.

(c) If the batch sequence is accepted, the manufacturer will not be required to perform any additional testing on compressors from subsequent batches pursuant to the initiating test request.

(d) The Administrator may terminate testing earlier than required in paragraph (b) of this section based on a request by the manufacturer accompanied by voluntary cessation of distribution in commerce, from all plants, of compressors from the configuration in question: *Provided*, That once production is reinitiated, the manufacturer must take the action described in § 204.57-9 (a)(1) and (a)(2) prior to distribution in commerce of any compressors from any plant of the compressor category or configuration in question.

§ 204.57-8 Continued testing.

(a) If a batch sequence is rejected in accordance with paragraph (b) of § 204.57-7, the Administrator may require that any or all compressors of that category, configuration or subgroup thereof produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require such continued testing of compressors pursuant to paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the selective enforcement audit was conducted properly; whether the criteria for batch sequence rejection in § 204.57-7 have been met; and, the appropriateness or scope of a continued testing order. In the event that a hearing is requested, the hearing shall begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress shall affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested compressor which demonstrates conformance with the applicable standards may be distributed into commerce.

(e) Any knowing distribution into commerce of a compressor which does not comply with the applicable standards is a prohibited act.

(Sec. 6, 13, Pub. L. 92-574 (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61455, Dec. 5, 1977; 44 FR 54295, Sept. 19, 1979]

§ 204.57-9 Prohibition of distribution in commerce; manufacturer's remedy.

(a) The Administrator will permit the cessation of continued testing under § 204.57-8 once the manufacturer has taken the following actions:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the compressors, describes the problem, and describes the proposed quality control and/or quality assurance remedies to be taken by the manufacturer to correct the problem or follows the requirements for an engineering change. Such requirements include the following:

(i) Any change to a configuration with respect to any of the parameters stated in § 204.55-3 shall constitute the addition of a new and separate configuration or category to the manufacturer's product line.

(ii) When a manufacturer introduces a new category or configuration to his product line, he shall proceed in accordance with § 204.55-2.

(iii) If the configuration to be added can be grouped within a verified category and the new configuration is estimated to have a lower sound level than a previously verified configuration with the same category, the configuration shall be considered verified.

(2) Demonstrates that the specified compressor category, configuration or subgroup thereof has passed a retest conducted in accordance with § 204.57 and the conditions specified in the initial test request.

(3) The manufacturer may begin testing under paragraph (a)(2) of this section, upon submitting such report, and may cease continued testing upon making the demonstration required by paragraph (a)(2) of this section: *Provided*, That the Administrator may require resumption of contined testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a) (1) and (2) of this section.

(4) In lieu of paragraphs (a) (1) and (2) of this section, the Administrator will permit the cessation of continued testing under § 204.57-8 with respect to any subgroup of a nonconforming category or configuration if the manufacturer demonstrates to the satisfaction of the Administrator that such subgroup does not exhibit the cause of the nonconformity of such category or configuration.

(b) Any compressor failing the prescribed noise emission tests conducted pursuant to this Subpart B may not be distributed in commerce until necessary adjustments or repairs have been made and the compressor passes a retest.

(c) No compressors of a rejected batch which are still in the hands of the manufacturer may be distributed in commerce unless the manufacturer has demonstrated to the satisfaction of the Administrator that such compressors do, in fact, conform to the regulations; except, that any compressor that has been tested and does, in fact, conform with these regulations may be distributed in commerce.

(Secs. 6, 10, 13, Pub. L. 92-574 (42 U.S.C. 4909 and 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61455, Dec. 5, 1977; 47 FR 57712, Dec. 28, 1982]

§ 204.58 In-use requirements.

§ 204.58-1 Warranty.

(a) The portable air compressor manufacturer shall include in the owner's manual or in other information supplied to the ultimate purchaser, the following statement:

NOISE EMISSIONS WARRANTY

The manufacturer warrants to the ultimate purchaser and each subsequent purchaser that this air compressor was designed, built, and equipped to conform at the time of sale to the first retail purchaser, with all applicable U.S. E.P.A. noise control regulations.

This warranty is not limited to any particular part, component, or system of the air compressor. Defects in the design, assembly, or in any part, component, or system of the compressor which, at the time of sale to the first retail purchaser, caused noise emissions to exceed Federal standards are covered by this warranty for the life of the air compressor.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92-574, 86 Stat. 1244; (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 47 FR 57712, Dec. 28, 1982]

§ 204.58-2 Tampering.

(a) For each configuration of air compressors covered by this part, the manufacturer shall develop a list of those acts which, in his judgment, might be done to the air compressor in use and which would constitute the removal or rendering inoperative of noise control devices or elements of design of the compressor.

(b) The manufacturer shall include in the owner's manual the following information:

(1) The statement:

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof:

(1) The removal or rendering inoperative by any persons, other than for purposes of maintenance, repair, or replacement, of any devices or element of design incorporated into any new compressor for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the compressor after such device or element of design has been removed or rendered inoperative by any person.

(2) The statement:

Among those acts included in the prohibition against tampering are the acts listed below.

Immediately following this statement, the manufacturer shall include the list developed under paragraph (a) of this section.

(c) Any act included in the list prepared pursuant to paragraph (a) of this section is presumed to constitute tampering; however, in any case in which a proscribed act has been committed and it can be shown that such act resulted in no increase in the sound level of the compressor or that the compressor still meets the noise emission standard of § 204.52, such set will not constitute tampering.

(d) The provisions of this section are not intended to preclude any State or local jurisdiction from adopting and enforcing its own prohibitions against the removal or rendering inoperative of noise control systems on compressors subject to this part.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92-574, 86 Stat. 1244; (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 47 FR 57713, Dec. 28, 1982]

§ 204.58-3 Instructions for maintenance, use, and repair.

(a)(1) The manufacturer shall provide to the ultimate purchaser of each portable air compressor covered by this part written instructions for the proper maintenance, use, and repair of the compressor in order to provide reasonable assurance of the elimination or minimization of noise emission degradation throughout the life of the compressor.

(2) The purpose of the instructions is to inform purchasers and mechanics of those acts necessary to reasonably assure that degradation of noise emission levels is eliminated or minimized during the life of the compressor. Manufacturers should prepare the instructions with this purpose in mind. The instructions should be clear and, to the extent practicable, written in non-technical language.

(3) The instructions must not be used to secure an unfair competitive advantage. They should not restrict replacement equipment to original equipment or service to dealer service. Manufacturers who so restrict replacement equipment must make public any performance specifications on such equipment.

(b) For the purpose of encouraging proper maintenance, the manufacturer shall provide a record or log book which shall contain a performance schedule for all required noise emission control maintenance. Space shall be provided in this record book so that the purchaser can note what maintenance was done, by whom, where and when.

(Secs. 6, 13, Pub. L. 92-574 (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 47 FR 57713, Dec. 28, 1982]

§ 204.59 Recall of non-complying compressors.

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to recall and repair or modify any compressor distributed in commerce not in compliance with this subpart.

(b) A recall order issued pursuant to this section shall be based upon a determination by the Administrator that compressors of a specified category or configuration have been distributed in commerce which do not conform to the regulations. Such determination may be based on:

(1) A technical analysis of the noise emission characteristics of the category or configuration in question; or

(2) Any other relevant information, including test data.

(c) For the purposes of this section, noise emissions may be measured by any test prescribed in § 204.54 for testing prior to sale or any other test which has been demonstrated to correlate with the prescribed test procedure.

(d) Any such order shall be issued only after notice and an opportunity for a hearing in accordance with section 554 of Title 5 of the United States Code.

(e) All costs, including labor and parts, associated with the recall and repair or modification of non-complying compressors under this section shall be borne by the manufacturer.

(f) This section shall not limit the discretion of the Administrator to take any other actions which are authorized by the Act.

(Secs. 6, 11, Pub. L. 92-574 (42 U.S.C. 4910))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 61456, Dec. 5, 1977]

APPENDIX I

TABLE I—SAMPLE SIZE CODE LETTERS

Batch size	Code letter
4 to 8	A.
9 to 15	B.
16 to 25	C.
26 and larger	D.

TABLE II—SAMPLING PLANS FOR INSPECTING BATCHES

Sample size code letter	Test sample	Test sample size	Cumulative test sample size	Batch inspection criteria	
				Acceptance number	Rejection number
A	1st	4	4	0	1
B	1st	3	3	0	1
C	1st	3	3	0	2
	2d	3	6	1	2
D	1st	2	2	(1)	2
	2d	2	4	(1)	2
	3d	2	6	0	2
	4th	2	8	0	3
	5th	2	10	1	3
	6th	2	12	1	3
	7th	2	14	2	3

[1] Batch acceptance not permitted at this sample size.

TABLE III—BATCH SEQUENCE PLANS

Sample size code letter	Number batches	Cumulative number batches	Sequence inspection criteria	
			Acceptance number	Rejection number
A	2	2	1	(1)
	2	4	2	4
	2	6	3	5
	2	8	4	5
B	2	2	0	(1)
	2	4	1	4
	2	6	2	5
	2	8	3	5
	2	10	4	6
	2	12	5	6
C	2	2	(2)	2
	2	4	0	2
	2	6	0	3
	2	8	1	3
	2	10	2	4
	2	12	3	4
D	2	2	0	2
	2	4	1	3
	2	6	2	4
	2	8	3	4

[1] Batch sequence rejection not permitted for this number of batches.
[2] Batch sequence acceptance not permitted for this number of batches.

TABLE IV—RECOMMENDED FORMAT FOR PORTABLE AIR COMPRESSOR NOISE DATA SHEET

Test report number: ....
Subject:
  Manufacturer: .... Model .... Serial No ....
  Rated speed: .... Rpm: .... Rated capacity .... cfm (m^3/m)
  Configuration identification: .... Category identification ....
  Portable air compressor identification No.: .... Build Date ....
Test conditions:
  Manufacturers test site identification and location: ....
  Reflecting plane composition: ....
Operating speed as tested:
  Beginning of test .... rpm
  End of test .... rpm
  Air pressure supplied: .... psi (kg/cm^2) Ambient wind speed .... mph (km/hr)
  Actual flow rate: .... cfm (m^3/min.) Atmospheric pressure .... psi (kg/cm^2)
  Temperature: .... °F (°C)
Instrumentation:
  Microphone Manufacturer: .... Model No. .... Serial No ....
  Sound Level Meter Manufacturer: .... Model No .... Serial No ....
  Calibrator Manufacturer: .... Model No .... Serial No ....
  Other and Manufacturer .... Model No .... Serial No ....
Data:

Sound levels (decibels)	Background sound level at location 1 (decibels)	Location					Average sound level (decibels)
		1	2	3	4	5	
A-Weighted							

Tested by: .... Date: ....
Reported by: .... Date: ....
Supervisory personnel: .... Title: ....
Title: ....

PART 205—TRANSPORTATION EQUIPMENT NOISE EMISSION CONTROLS

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APPENDIX I TO SUBPARTS D AND E—MOTORCYCLE NOISE EMISSION TEST PROCEDURES
APPENDIX II TO SUBPART E—SAMPLING TABLES

AUTHORITY: Secs. 6, 10, 11, 13, Pub. L. 92-574, 86 Stat. 1234 (42 U.S.C. 4905, 4909, 4910, 4912).

SOURCE: 41 FR 15544, Apr. 13, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 205.1 General applicability.

The provisions of this subpart are applicable to all products for which regulations have been published under this part and which are manufactured after the effective date of such regulations.

§ 205.2 Definitions.

(a) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act.

(1) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234).

(2) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(3) "Agency" means the United States Environmental Protection Agency.

(4) "Export exemption" means an exemption from the prohibitions of section 10(a)(1), (2), (3), and (4) of the Act, granted by statute under section 10(b)(2) of the Act for the purpose of exporting regulated products.

(5) "National security exemption" means an exemption from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of national security.

(6) [Reserved]

(7) "Sound Level" means 20 times the logarithm to base 10 of the ratio of pressure of a sound to the reference pressure. The reference pressure is 20 micropascals (20 micronewtons per square meter). NOTE: Unless otherwise explicitly stated, it is to be understood that the sound pressure is the effective (rms) sound pressure, per American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(8) "Sound Pressure Level" means in decibels, 20 times the logarithm to the base 10 of the ratio of a sound pressure to the reference sound pressure of 20 micropascals (20 micronewtons per square meter). In the absence of any modifier, the level is understood to be that of a root-mean-square pressure. The unit of any sound level is the decibel, having the unit symbol dB.

(9) "dB(A)" means the standard abbreviation for A-weighted sound levels in decibels.

(10) "Highway" means the streets, roads, and public ways in any State.

(11) "Fast Meter Response" means that the fast dynamic response of the sound level meter shall be used. The fast dynamic response shall comply with the meter dynamic characteristics in paragraph 5.3 of the American National Standard Specification for Sound Level Meters, ANSI SI.4-1971. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(12) "Person" means an individual, corporation, partnership, or association, and except as provided in sections 11(e) and 12(a) of the Act includes any officer, employee, department, agency or instrumentality of the United States, a State or any political subdivision of a State.

(13) "Reasonable assistance" means providing timely and unobstructed access to test products or products and records required by this part, and opportunity for copying such records or testing such test products.

(14) "Ultimate purchaser" means the first person who in good faith purchases a product for purposes other than resale.

(15) "New product" means (i) a product the equitable or legal title of which has never been transferred to an ultimate purchaser, or (ii) a product which is imported or offered for importation into the United States and which is manufactured after the effective date of gulation under section 6 or 8 which would have been applicable to such product had it been manufactured in the United States.

(16) "Manufacturer" means any person engaged in the manufacturing or assembling of new products, or the importing of new products for resale, or who acts for and is controlled by any such person in connection with the distribution of such products.

(17) "Commerce" means trade, traffic, commerce, or transportation:

(i) Between a place in a State and any place outside thereof, or

(ii) Which affects trade, traffic, commerce, or transportation described in paragraph (a)(17)(i) of this section.

(18) "Distribute in commerce" means sell in, offer for sale in, or introduce or deliver for introduction into, commerce.

(19) "State" includes the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Trust Territory of the Pacific Islands.

(20) "Federal Agency" means an executive agency (as defined in section 105 of Title 5, United States Code) and includes the United States Postal Service.

(21) "Environmental noise" means the intensity, duration, and the character of sounds from all sources.

(22) "Warranty" means the warranty required by section 6(c)(1) of the Act.

(23) "Tampering" means those acts prohibited by section 10(a)(2) of the Act.

(24) "Maintenance instructions" or "instructions" means those instructions for maintenance, use, and repair, which the Administrator is authorized to require pursuant to section 6(c)(1) of the Act.

(25) "Type I Sound Level Meter" means a sound level meter which meets the Type I requirements of ANSI SI.4-1972 specification for sound level meters. This publication is avail-

able from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(26) "Testing exemption" means an exemption from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of research, investigations, studies, demonstrations, or training, but not including national security.

(27) "Product" means any transportation equipment for which regulations have been promulgated under this part and includes "test product."

(28) "Test product" means any product that is required to be tested pursuant to this part.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61457, Dec. 5, 1977]

§ 205.3 Number and gender.

As used in this part, words in the singular shall be deemed to import the plural, and words in the masculine gender shall be deemed to import the feminine and vice versa, as the case may require.

§ 205.4 Inspection and monitoring.

(a) Any inspection or monitoring activities conducted under this section shall be for the purpose of determining (1) whether test products are being selected and prepared for testing in accordance with the provisions of these regulations, (2) whether test product testing is being conducted in accordance with these regulations, and (3) whether products being produced for distribution into commerce comply with these regulations.

(b) The Director, Noise Enforcement Division, may request that a manufacturer subject to this part admit an EPA Enforcement Officer during operating hours to any of the following:

(1) Any facility or site where any product to be distributed into commerce is manufactured, assembled, or stored;

(2) Any facility or site where any tests conducted pursuant to this part or any procedures or activities connected with such tests are or were performed; and

(3) Any facility or site where any test product is present.

(c)(1) An EPA Enforcement Officer, once admitted to a facility or site, will not be authorized to do more than:

(i) To inspect and monitor test product manufacture and assembly, selection, storage, preconditioning, noise emission testing, and maintenance, and to verify correlation or calibration of test equipment;

(ii) To inspect products prior to their distribution in commerce;

(iii) To inspect and photograph any part or aspect of any such product and any component used in the assembly thereof that are reasonably related to the purpose of his entry.

(iv) [Reserved]

(v) To obtain from those in charge of the facility or site such reasonable assistance as he may request to enable him to carry out any proper function listed in this section.

(2) [Reserved]

(3) The provisions of this section apply whether the facility or site is owned or controlled by the manufacturer or by one who acts for the manufacturer.

(d) For purposes of this section:

(1) An "EPA Enforcement Officer" is an employee of the EPA Office of Enforcement who displays upon arrival at a facility or site the credentials identifying him as such an employee and a letter signed by the Director, Noise Enforcement Division designating him to make the inspection.

(2) Where test product storage areas or facilities are concerned, "operating hours" shall mean all times during which personnel other than custodial personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (d)(2) of this section are concerned, "operating hours" shall mean all times during which product manufacture or assembly is in operation or all times during which product testing and maintenance is taking place and/or production or compilation of records is taking place, or any other procedure or activity related to selective enforcement audit testing or product manufacture or assembly being carried out in a facility.

(e) The manufacturer shall admit to a facility or site an EPA Enforcement Officer who presents a warrant authorizing entry. In the absence of such warrant, entry to any facility or site under this section will be only upon the consent of the manufacturer.

(1) It is not a violation of this regulation or the Act for any person to refuse entry without a warrant.

(2) The Administrator or his designee may proceed ex parte to obtain a warrant whether or not the manufacturer has refused entry.

[41 FR 15544, Apr. 13, 1976, as amended at 43 FR 27990, June 28, 1978; 47 FR 57713, Dec. 28, 1982]

§ 205.5 Exemptions.

§ 205.5-1 Testing exemption.

(a) A new product intended to be used solely for research, investigations, studies, demonstrations or training, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act.

(b) No request for a testing exemption is required.

(c) For purposes of section 11(d) of the Act, any testing exemption shall be void ab initio with respect to each new product, originally intended for research, investigations, studies, demonstrations, or training, but distributed in commerce for other uses.

[47 FR 57713, Dec. 28, 1982]

§ 205.5-2 National security exemptions.

(a) A new product which is produced to conform with specifications developed by a national security agency, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act.

(b) No request for a national security exemption is required.

(c) For purposes of section 11(d) of the Act, any national security exemption shall be void ab initio with respect to each new product, originally intended to be produced to conform with specifications developed by a national security agency, but distributed in commerce for other uses.

(d) Any manufacturer or person subject to the liabilities of section 11(a) with respect to any product originally intended for a national security agency, but distributed in commerce for use in any State, may be excluded from the application of section 11(a) with respect to such product based upon a showing that such manufacturer:

(1) Had no knowledge of such product being distributed in commerce for use in any state; and

(2) Made reasonable effort to ensure that such products would not be distributed in commerce for use in any State. Such reasonable efforts would include investigation, prior dealings, contract provisions, etc.

[47 FR 57714, Dec. 28, 1982]

§ 205.5-3 Export exemptions.

(a) A new product intended solely for export, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of section 10(a), (1), (2), (3), and (4) of the Act.

(b) No request for an export exemption is required.

(c) For purposes of section 11(d) of the Noise Control Act, the Administrator may consider any export exemption under section 10(b)(2) as void ab initio with respect to each new product intended solely for export which is distributed in commerce for use in any State.

(d) In deciding whether to institute proceedings against a manufacturer pursuant to section 11(d)(1) of the Act with respect to any product originally intended solely for export but distributed in commerce for use in any state, the Administrator will consider:

(1) Whether the manufacturer had knowledge that such product would be distributed in commerce for use in any state; and

(2) Whether the manufacturer made reasonable efforts to ensure that such product would not be distributed in commerce for use in any state. Such reasonable efforts would include consideration of prior dealings with any person which resulted in introduction into commerce of a product manufactured for export only, investigation of

prior instances known to the manufacturer of introduction into commerce of a product manufactured for export only, and contract provisions which minimize the probability of introduction into commerce of a product manufactured for export only.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61457, Dec. 5, 1977. Redesignated at 47 FR 57714, Dec. 28, 1982]

Subpart B—Medium and Heavy Trucks

EDITORIAL NOTE: Effective January 1, 1978, the provisions of 40 CFR 205.50 through 205.59 shall not apply with respect to any fire apparatus. This action is a stay pending reconsideration of the regulation, and shall continue until 90 days following publication of notice in the FEDERAL REGISTER, as to EPA's final decision of the petition of the Truck Body and Equipment Association dated July 29, 1977. (See 43 FR 1796, Jan. 12, 1978.)

§ 205.50 Applicability.

(a) Except as otherwise provided for in these regulations the provisions of this subpart apply to any vehicle which has a gross vehicle weight rating (GVWR) in excess of 10,000 pounds, which is capable of transportation of property on a highway or street and which meets the definition of the term "new product" in the Act.

(b) The provisions of the subpart do not apply to highway, city, and school buses or to special purpose equipment which may be located on or operated from vehicles. Tests performed on vehicles containing such equipment may be carried out with the special purpose equipment in nonoperating condition. For purposes of this regulation special purpose equipment includes, but is not limited to, construction equipment, snow plows, garbage compactors and refrigeration equipment.

§ 205.51 Definitions.

(a) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in other subparts of this part.

(1) "Acceptable Quality Level" means the maximum percentage of failing vehicles that for purposes of sampling inspection, can be considered satisfactory as a process average.

(2) "Acceptance of a batch" means that the number of noncomplying vehicles in the batch sample is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(3) "Batch" means the collection of vehicles of the same category, configuration or subgroup thereof as designated by the Administrator in a test request, from which a batch sample is to be drawn, and inspected to determine conformance with the acceptability criteria.

(4) "Batch size" means the number as designated by the Administrator in the test request of vehicles of the same category or configuration in a batch.

(5) "Batch sample" means the collection of vehicles of the same category, configuration or subgroup thereof which are drawn from a batch and from which test samples are drawn.

(6) "Batch sample size" means the number of vehicles of the same category or configuration in a batch sample.

(7) "Cab over axle" or "cab over engine" means the cab which contains the operator/passenger compartment is directly above the engine and front axle and the entire cab can be tilted forward to permit access to the engine compartment.

(8) "Category" means a group of vehicle configurations which are identical in all material aspects with respect to the parameters listed in § 205.55-2.

(9) "Configuration" means the basic classification unit of a manufacturer's product line and is comprised of all vehicle designs, models or series which are identical in material aspects with respect to the parameters listed in § 205.55-3.

(10) "Acceptance of a Batch sequence" means that the number of rejected batches in the sequence is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(11) "Rejection of a Batch sequence" means that the number of rejected batches in a sequence is equal to or greater than the rejection number as determined by the appropriate sampling plan.

(12) "Capable of Transportation of Property on a street or highway" means that the vehicle:

(i) Is self propelled and is capable of transporting any material or fixed apparatus, or is capable of drawing a trailer or semi-trailer;

(ii) Is capable of maintaining a cruising speed of at least 25 mph over level, paved surface;

(iii) Is equipped or can readily be equipped with features customarily associated with practical street or highway use, such features including but not being limited to: A reverse gear and a differential, fifth wheel, cargo platform or cargo enclosure, and

(iv) Does not exhibit features which render its use on a street or highway impractical, or highly unlikely, such features including, but not being limited to, tracked road means, an inordinate size or features ordinarily associated with combat or tactical vehicles.

(13) "Exhaust System" means the system comprised of a combination of components which provides for enclosed flow of exhaust gas from engine exhaust port to the atmosphere.

(14) "Gross Combination Weight Rating" (GCWR) means the value specified by the manufacturer as the loaded weight of a combination vehicle.

(15) "Gross Vehicle Weight Rating" (GVWR) means the value specified by the manufacturer as the loaded weight of a single vehicle.

(16) "Inspection Criteria" means the rejection and acceptance numbers associated with a particular sampling plan.

(17) "Model year" means the manufacturer's annual production period which includes January 1 of such calendar year: Provided, that if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

(18) "Noise Control System" includes any vehicle part, component or system the primary purpose of which is to control or cause the reduction of noise emitted from a vehicle.

(19) "Noise emission test" means a test conducted pursuant to the measurement methodology specified in this subpart.

(20) [Reserved]

(21) "Rejection of a batch" means the number of noncomplying vehicles in the batch sample is greater than or equal to the rejection number as determined by the appropriate sampling plan.

(22) "Shift" means the regular production work period for one group of workers.

(23) "Test sample" means the collection of vehicles from the same category, configuration or subgroup thereof which is drawn from the batch sample and which will receive noise emissions tests.

(24) "Failing vehicle" means that the measured emissions of the vehicle, when measured in accordance with the applicable procedure, exceeds the applicable standard.

(25) "Acceptance of a vehicle" means that the measured emissions of the vehicle when measured in accordance with the applicable procedure, conforms to the applicable standard.

(26) "Tampering" means those acts prohibited by section 10(a)(2) of the Act.

(27) "Test sample size" means the number of vehicles of the same category or configuration in a test sample.

(28) "Test vehicle" means a vehicle selected and used to demonstrate compliance with the applicable noise emission standards.

(29) "Vehicle" means any motor vehicle, machine or tractor, which is propelled by mechanical power and capable of transportation of property on a street or highway and which has a gross vehicle weight rating in excess of 10,000 pounds and a partially or fully enclosed operator's compartment.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, 61458, Dec. 5, 1977; 47 FR 57714, Dec. 28, 1982]

§ 205.52 Vehicle noise emission standards.

(a) Low Speed Noise Emission Standard.

Vehicles which are manufactured after the following effective dates shall be designed, built and equipped so that they will not produce sound emissions in excess of the levels indicated.

Effective date	Level
(i) January 1, 1979	83 dBA.
(ii) January 1, 1988	80 dBA.

(b) The standards set forth in paragraph (a) of this section refer to the sound emissions as measured in accordance with the procedures prescribed in § 205.54-1,2.

(c) Every manufacturer of a new motor vehicle subject to the standards prescribed in this paragraph shall, prior to taking any of the actions specified in section 10(a)(1) of the Act, comply with the other provisions of this subpart or Subpart A, as applicable.

(d) In-Use Standard. [Reserved]

(e) Low Noise Emission Product. [Reserved]

(Sec. 6, Pub. L. 92-574, 86 Stat. 1237 (42 U.S.C. 4905, 4906))

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, Dec. 5, 1977; 51 FR 852, Jan. 8, 1986]

§ 205.54 Test procedures.

The procedures described in this and subsequent sections will be the test program to determine the conformity of vehicles with the standards set forth in § 205.52 for the purposes of Selective Enforcement Auditing and Testing by the Administrator.

[47 FR 57714, Dec. 28, 1982]

§ 205.54-1 Low speed sound emission test procedures.

(a) *Instrumentation.* The following instrumentation shall be used, where applicable.

(1) A sound level meter which meets the Type 1 requirements of ANSI S1.4-1971, Specification for Sound Level Meters, or a sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating meter, providing the system meets the requirements of § 205.54-2.

(2) A sound level calibrator. The calibrator shall produce a sound pressure level, at the microphone diaphragm, that is known to within an accuracy of ±0.5 dB. The calibrator shall be checked annually to verify that its output has not changed.

(3) An engine-speed tachometer which is accurate within ±2 percent of meter reading.

(4) An anemometer or other device for measurement of ambient wind speed accurate within ±10 percent.

(5) A thermometer for measurement of ambient temperature accurate within ±1 C.

(6) A barometer for measurement of ambient pressure accurate within ±1 percent.

(b)(1) The test site shall be such that the truck radiates sound into a free field over a reflecting plane. This condition may be considered fulfilled if the test site consists of an open space free of large reflecting surfaces, such as parked vehicles, signboards, buildings or hillsides, located within 100 feet (30.4 meters) of either the vehicle path or the microphone.

(2) The microphone shall be located 50 feet ±4 in. (15.2±0.1 meter) from the centerline of truck travel and 4 feet ±4 in. (1.2±0.1 meters) above the ground plane. The microphone point is defined as the point of intersection of the vehicle path and the normal to the vehicle path drawn from the microphone. The microphone shall be oriented in a fixed position to minimize the deviation from the flattest system response over the frequency range 100 Hz to 10 kHz for a vehicle traversing from the acceleration point through the end zone.

The microphone shall be oriented with respect to the source so that the sound strikes the diaphragm at the angle for which the microphone was calibrated to have the flattest frequency response characteristic over the frequency range 100 Hz to 10 kHz.

(3) An acceleration point shall be established on the vehicle path 50 feet (15 m) before the microphone point.

(4) An end point shall be established on the vehicle path 100 feet (30 m) from the acceleration point and 50 feet (15 m) from the microphone point.

(5) The end zone is the last 40 feet (12 m) of vehicle path prior to the end point.

(6) The measurement area shall be the triangular paved (concrete or sealed asphalt) area formed by the ac-

celeration point, the end point, and the microphone location.

(7) The reference point on the vehicle, to indicate when the vehicle is at any of the points on the vehicle path, shall be the front of the vehicle except as follows:

(i) If the horizontal distance from the front of the vehicle to the exhaust outlet is more than 200 inches (5.1 meters), tests shall be run using both the front and rear of the vehicle as reference points.

(ii) If the engine is located rearward to the center of the chassis, the rear of the vehicle shall be used as the reference point.

(8) The plane containing the vehicle path and the microphone location (plane ABCDE in Figure 1) shall be flat within ±2 inches (.05 meters).

(9) Measurements shall not be made when the road surface is wet, covered with snow, or during precipitation.

(10) Bystanders have an appreciable influence on sound level meter readings when they are in the vicinity of the vehicle or microphone; therefore not more than one person, other than the observer reading the meter, shall be within 50 feet (15.2 meters) of the vehicle path or instrument and the person shall be directly behind the observer reading the meter, on a line through the microphone and observer. To minimize the effect of the observer and the container of the sound level meter electronics on the measurements, cable should be used between the microphone and the sound level meter. No observer shall be located within 1 m in any direction of the microphone location.

(11) The maximum A-weighted fast response sound level observed at the test site immediately before and after the test shall be at least 10 dB below the regulated level.

(12) The road surface within the test site upon which the vehicle travels, and, at a minimum, the measurements area (BCD in figure 205.1) shall be smooth concrete or smooth sealed asphalt, free of extraneous material such as gravel.

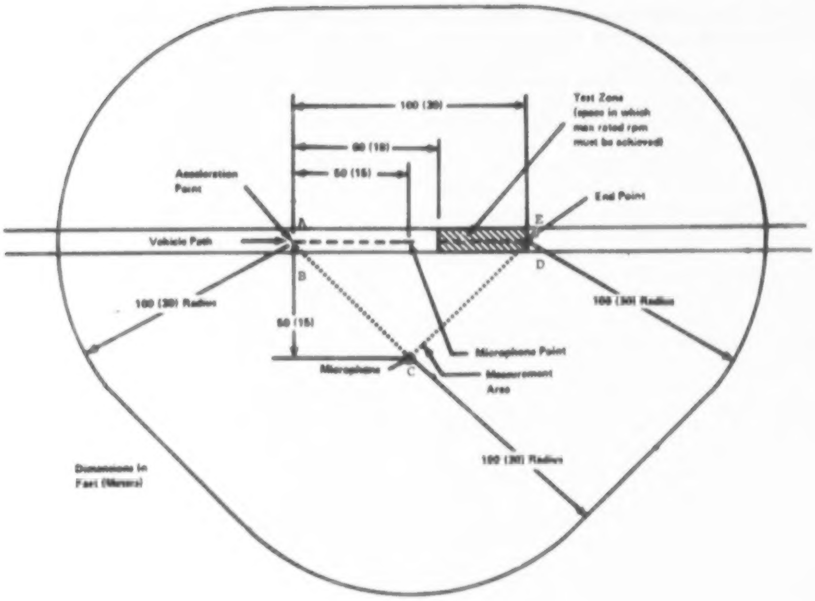

100 (30)
60 (18)
50 (15)
Test Zone (space in which max rated rpm must be achieved)
Acceleration Point
End Point
A
E
Vehicle Path
B
D
100 (30) Radius
100 (30) Radius
50 (15)
Microphone Point
Microphone
C
Measurement Area
Dimensions In Feet (Meters)
100 (30) Radius

FIGURE 205.1

(13) Vehicles with diesel engines shall be tested using Number 1D or Number 2D diesel fuel possessing a cetane rating from 42 to 50 inclusive.

(14) Vehicles with gasoline engines shall use the grade of gasoline recommended by the manufacturer for use by the purchaser.

(15) Vehicles equipped with thermostatically controlled radiator fans may be tested with the fan not operating.

(c) *Procedure*—(1) *Vehicle operation for vehicles with standard transmissions.* Full throttle acceleration and closed throttle deceleration tests are to be used. A beginning engine speed and proper gear ratio must be determined for use during measurements. Closed throttle deceleration tests are required only for those vehicles equipped with an engine brake.

(i) Select the highest rear axle and/or transmission gear ("highest gear" is used in the usual sense; it is synonymous to the lowest numerical ratio) and an initial vehicle speed such that at wide-open throttle the vehicle will accelerate from the acceleration point.

(*a*) Starting at no more than two-thirds (66 percent) of maximum rated or of governed engine speed.

(*b*) Reaching maximum rated or governed engine speed within the end zone.

(*c*) Without exceeding 35 mph (56 k/h) before reaching the end point.

(*1*) Should maximum rated or governed rpm be attained before reaching the end zone, decrease the approach rpm in 100 rpm increments until maximum rated or governed rpm is attained within the end zone.

(*2*) Should maximum rated or governed rpm not be attained until beyond the end zone, select the next lower gear until maximum rated or governed rpm is attained within the end zone.

(*3*) Should the lowest gear still result in reaching maximum rated or governed rpm beyond the permissible end zone, unload the vehicle and/or increase the approach rpm in 100 rpm increments until the maximum rated or governed rpm is reached within the end zone.

(ii) For the acceleration test, approach the acceleration point using the engine speed and gear ratio selected in paragraph (c)(1) of this section and at the acceleration point rapidly establish wide-open throttle. The vehicle reference shall be as indicated in paragraph (b)(7) of this section. Acceleration shall continue until maximum rated or governed engine speed is reached.

(iii) Wheel slip which affects maximum sound level must be avoided.

(2) *Vehicle operation for vehicles with automatic transmissions.* Full throttle acceleration and closed throttle deceleration tests are to be used. Closed throttle deceleration tests are required only for those vehicles equipped with an engine brake.

(i) Select the highest gear axle and/or transmission gear (highest gear is used in the usual sense; it is synonymous to the lowest numerical ratio) in which no up or down shifting will occur under any operational conditions of the vehicle during the test run. Also, select an initial vehicle speed such that at wide-open throttle the vehicle will accelerate from the acceleration point.

(*a*) Starting at two-thirds (66 percent) of maximum rated or of governed engine speed.

(*b*) Reaching maximum rated or governed engine speed within the end zone.

(*c*) Without exceeding 35 mph (56 k/h) before reaching the end point.

(*1*) Should maximum rated or governed rpm be attained before reaching the end zone, decrease the approach rpm in 100 rpm increments until maximum rated or governed rpm is attained within the end zone.

(*2*) Should maximum rated or governed rpm not be attained until beyond the end zone, select the next lower gear until maximum rated or governed rpm is attained within the end zone.

(*3*) Should the lowest gear still result in reaching maximum rated or governed rpm beyond the permissible end zone, unload the vehicle and/or increase the approach rpm in 100 rpm increments until the maximum rated or governed rpm is reached within the end zone, notwithstanding that approach engine speed may now exceed two-thirds of maximum rated or of full load governed engine speed.

(*4*) Should the maximum rated or governed rpm still be attained before entering the end zone, and the engine rpm during approach cannot be further lowered, begin acceleration at a point 10 feet closer to the beginning of the end zone. The approach rpm to be used is to be that rpm used prior to the moving of the acceleration point 10 feet closer to the beginning of the end zone.

(*5*) Should the maximum rated or governed rpm still be attained before entering the end zone, repeat the instructions in paragraph (c)(2)(i)(*c*)(*4*) of this section until maximum rated or governed rpm is attained within the end zone.

(ii) For the acceleration test, approach the acceleration point using the engine speed and gear ratio selected in paragraph (c)(2)(i) of this section and at the acceleration point rapidly establish wide-open throttle. The vehicle reference shall be as indicated in paragraph (b)(7) of this section. Acceleration shall continue until maximum rated or governed engine speed is reached.

(iii) Wheel slip which affects maximum sound level must be avoided.

(3) *Measurements.* (i) The meter shall be set for "fast response" and the A-weighted network.

(ii) The meter shall be observed during the period while the vehicle is accelerating or decelerating. The applicable reading shall be the highest sound level obtained for the run. The observer is cautioned to rerun the test if unrelated peaks should occur due to extraneous ambient noises. Readings shall be taken on both side of the vehicle.

(iii) The sound level associated with a side shall be the average of the first two pass-by measurements for that side, if they are within 2 dB(A) of each other. Average of measurements on each side shall be computed separately. If the first two measurements for a given side differ by more than 2 dB(A), two additional measurements shall be made on each side, and the average of the two highest measurements on each side, within 2 dB(A) of each other, shall be taken as the measured vehicle sound level for that side. The reported vehicle sound level shall be the higher of the two averages.

(d) *General requirements.* (1) Measurements shall be made only when wind velocity is below 12 mph (19 km/hr).

(2) Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer shall be referred to for both recommended operation of the instrument and precautions to be observed. Specific items to be adequately considered are:

(i) The effects of ambient weather conditions on the performance of the instruments (for example, temperature, humidity, and barometric pressure).

(ii) Proper signal levels, terminating impedances, and cable lengths on multi-instrument measurement systems.

(iii) Proper acoustical calibration procedure to include the influence of extension cables, etc. Field calibration shall be made immediately before and after each test sequence. Internal calibration means is acceptable for field use, provided that external calibration is accomplished immediately before or after field use.

(3)(i) A complete calibration of the instrumentation and external acoustical calibrator over the entire frequency range of interest shall be performed at least annually and as frequently as necessary during the yearly period to insure compliance with the standards cited in American National Standard S1.4-1971 "Specifications for Sound Level Meters" for a Type 1 instrument over the frequency range 50 Hz-10,000 Hz.

(ii) If calibration devices are utilized which are not independent of ambient pressure (e.g., a piston-phone) corrections must be made for barometric or altimetric changes according to the recommendation of the instrument manufacturer.

(4) The truck shall be brought to a temperature within its normal operating temperature range prior to commencement of testing. During testing appropriate caution shall be taken to maintain the engine temperatures within such normal operating range.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 11836, Mar. 1, 1977; 42 FR 61456, Dec. 5, 1977]

§ 205.54-2 Sound data acquisition system.

(a) Systems employing tape recorders and graphic level recorders may be established as equivalent to a Type I—ANSI S1.4-1971 sound level meter for use in determining compliance with this regulation by meeting the requirements of this section (§ 205.54-2(b)). This sound data acquisition system qualification procedure is based primarily on ANSI S6.1-1973.

(1) *Performance requirements*—(i) *System frequency response.* It is required that the overall steady-state frequency response of the data acquisition system shall be within the tolerances prescribed in Table 205.1 when measured in accordance with section (2). The tolerances in Table 205.1 are applicable to either flat or A-weighted response. (See paragraph (a)(3)(iii) of this section.)

(ii) *Detector response.* To ensure that a (true) rms indication is provided, the difference between the level indicated for a 1000 Hz sinusoidal signal equivalent to a sound level of 86 dB (rms) and the level indicated for an octave band of random noise of equal energy as the sinusoidal signal centered at 1000 Hz shall be no greater than 0.5 dB. A true rms voltmeter shall be used to determine equivalence of two input signals.

(iii) *Indicating meter.* If an indicating meter is used to obtain sound levels or band pressure levels, it must meet the requirements of paragraphs (a)(1)(ii) and (vi)(B) of this section and the following.

TABLE 205.1—SYSTEM RESPONSE DATA

Freq. (hertz)	A weighted response (Re 1000 Hz, dB)	Tolerance (decibels)	
		Plus—	Minus—
31.5	-39.4	1.5	1.5
40.0	-34.6	1.5	1.5
50.0	-30.2	1.0	1.0
63.0	-26.2	1.0	1.0
80.0	-22.5	1.0	1.0
100.0	-19.1	1.0	1.0
125.0	-16.1	1.0	1.0
160.0	-13.4	1.0	1.0
200.0	-10.9	1.0	1.0
250.0	-8.6	1.0	1.0
315.0	-6.6	1.0	1.0
400.0	-4.8	1.0	1.0
500.0	-3.2	1.0	1.0
630.0	-1.9	1.0	1.0
800.0	-.8	1.0	1.0
1,000.0	0	1.0	1.0
1,250.0	.6	1.0	1.0
1,600.0	1.0	1.0	1.0
2,000.0	1.2	1.0	1.0
2,500.0	1.3	1.0	1.0
3,150.0	1.2	1.0	1.0
4,000.0	1.0	1.0	1.0
5,000.0	.5	1.5	2.0
6,300.0	-.1	1.5	2.0
8,000.0	-1.1	1.5	3.0
10,000.0	-2.5	2.0	4.0
12,500.0	-4.3	3.0	6.0

(A) The scale shall be graduated in 1 dB steps.

(B) No scale indication shall be more than 0.2 dB different from the true value of the signal when an input signal equivalent to 86 dB sound level indicates correctly.

(C) Maximum indication for an input signal of 1000 Hz tone burst of 0.2 sec duration shall be within the range of −2 to 0 dB with respect to the steady-state indication for a 1000 Hz tone equivalent to 86 dB sound level.

(iv) *Microphone*. If microphone is used which has not been provided as a component of a precision sound level meter, it must be determined to meet the microphone characteristics described in IEC Publication 179, Precision Sound Level Meters.

(v) *Magnetic tape recorders*. No requirements are described in this document pertaining to tape recorders, except for frequency response. Generally, recorders of adequate quality to provide the frequency response performance required will also meet other minimum requirements for distortion, signal-to-noise ratio, etc.

(vi) *Graphic level recorder dynamic response*. When using a graphic level recorder, it is necessary to select pen response settings such that the readings obtained are statistically equivalent to those obtained by directly reading a meter which meets the "fast" dynamic requirement of a precision sound level meter indicating meter system for the range of vehicles to be tested. To ensure statistical equivalence, at least 30 comparative observations of real test data shall be made and the average of the absolute value of the differences observed shall be less than 0.5 dB. The settings described in this paragraph likely assure appropriate dynamic response; however, different settings may be selected on the basis of the above requirement.

(A) Use a pen writing speed of nominally 60-100 dB/sec. If adjustable, low frequency response should be limited to about 20 Hz.

(B) Indicated overshoot for a suddenly applied 1000 Hz sinusoidal signal equivalent to 86 dB sound level shall be no more than 1.1 dB and no less than 0.1 dB.

(2) *Frequency response qualification procedure*. (i) Typical noise measurement and analysis configurations are shown in Figures 205.2 through 205.4. The qualification procedure described herein duplicates these configurations, but with the microphone replaced by an electronic sinewave oscillator. Caution should be exercised when connecting an oscillator to the input of a sound level meter to ensure, perhaps by using a resistive voltage divider network, that the input is not overloaded (see § 205.54-2(a)(2)(ii)).

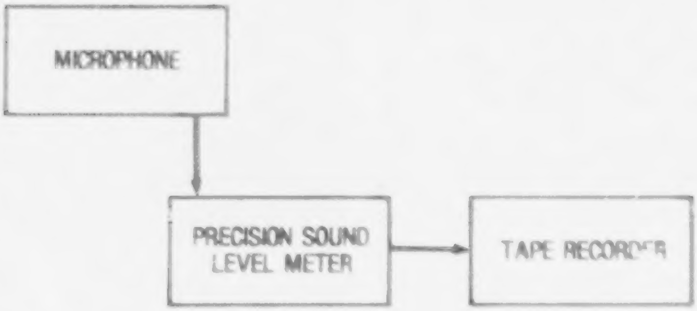

MICROPHONE
PRECISION SOUND LEVEL METER
TAPE RECORDER

FIGURE 205.2 DATA RECORDING

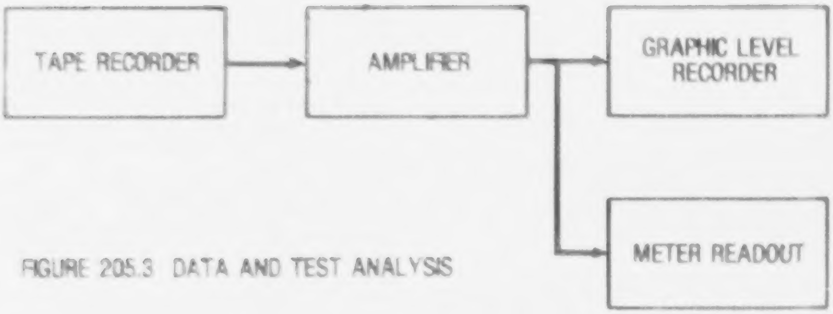

TAPE RECORDER
AMPLIFIER
GRAPHIC LEVEL RECORDER
METER READOUT

FIGURE 205.3 DATA AND TEST ANALYSIS

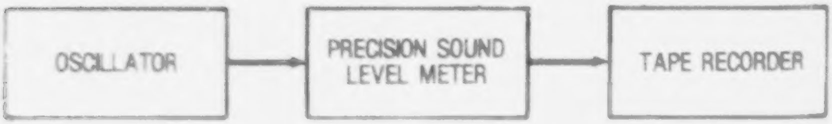

OSCILLATOR
PRECISION SOUND LEVEL METER
TAPE RECORDER

FIGURE 205.4 TEST RECORDING

(ii) Calibrate the oscillator to be used by measuring its output relative to the voltage which is equivalent to 86 dB sound level at each of the 27 frequencies listed in Table 205.1 using an electronic voltmeter of known calibration. Record the result in voltage level in dB re voltage corresponding to 86 dB sound level at 1000 Hz. This will describe the frequency response characteristics of the oscillator.

(iii) If a graphic level recorder is to be used, connect it to the oscillator output. If the oscillator and graphic level recorder can be synchronized, slowly sweep the frequency over the range of 31.5 to 12,500 Hz, recording the oscillator output. If they cannot be synchronized, record oscillator output for signals at the 27 frequencies given in Table 205.1. The differences between the combined response thus obtained and the oscillator response obtained previously will describe the frequency response of the graphic level recorder.

(iv) If visual observation of an indicating meter is to be used for obtaining data, the oscillator should be connected to the indicating meter input (such as the microphone input of a sound level meter) and the meter reading observed for a fixed oscillator output voltage setting for signals at the 27 frequencies given in Table 205.1.

(v) To check a tape recorder, connect the instruments as shown in Figure 205.4. Using a 1000 Hz tone, adjust the oscillator output level to obtain a reading 15 dB below maximum record level. If the synchronized oscillator/graphic level recorder system is to be used for analysis, record an oscillator sweep over the range of 31.5 to 12,500 Hz, using an appropriate tape recorder input attenuator setting. Alternatively, tape-record frequency tones at the 27 frequencies given in Table 205.1. Replay the tape recordings using the setup shown in Figure 205.3. Record the data on a graphic level recorder or through visual observation of the indicating meter. Subtract the oscillator frequency response in paragraph (b)(2) of this section from the response obtained through the record-playback sequence to obtain the record/reproduce frequency response of the system except for the microphone.

(vi) To obtain the overall system frequency response, add the manufacturer's microphone calibration data to the response just obtained. This may be the frequency response for the specific microphone to be used, including calibration tolerances. Alternatively, use the manufacturer's "typical" microphone response plus and minus the maximum deviation expected from "typical" including calibration tolerances. Use the microphone response curve which corresponds to the manner in which it is used in the field. It may be required to add a correction to the response curves provided to obtain field response; refer to the manufacturer's manual.

(vii) Adjustment or repair of equipment may be required to obtain response within the requirements of paragraph (a) of this section. After any adjustments, the system shall be requalified according to paragraph (b) of this section.

(3) *General comments.* (i) Calibrate tape recorders using the brand and type of magnetic tape used for actual data acquisition. Differences in tape can cause an appreciable variation in the recorder/reproduce frequency response characteristics of tape recorder.

(ii) It shall be ensured that the instrumentation used will perform within specifications and applicable tolerances over the temperature, humidity, and other environmental variation ranges which may be encountered in vehicle noise measurement works.

(iii) Qualification tests shall be performed using equipment (including cables) and recording and playback techniques identical with those used while recording vehicle noise. For example, if weighted sound level data are normally recorded use similar weighting and apply the tolerances of Table 205.1 to the weighting curve for comparison with record-playback curves. Precautions should also be taken to ensure that source and load impedances are appropriate to the device being tested. Other data acquisition systems may use any combination of microphones, sound level meters, amplifiers, tape recorders, graphic level recorders, or indicating meters. The same approach to qualifying such a system shall be taken as described in this document for the systems depicted in Figures 205.2, 205.3 and 205.4.

(b) Systems other than those specified in §§ 205.54-1(a) and 205.54-2(a) may be used for establishing compliance with this regulation. In each case the system must yield sound levels which are equivalent to those produced by a sound level meter Type 1 ANSI S1.4-1971. The manufacturer bears the burden of demonstrating such equivalence.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, Dec. 5, 1977; 47 FR 57714, Dec. 28, 1982]

§ 205.55 Requirements.

[47 FR 57714, Dec. 28, 1982]

§ 205.55-1 General requirements.

(a) Every new vehicle manufactured for distribution in commerce in the United States which is subject to the standards prescribed in this subpart and not exempted in accordance with § 205.5:

(1) Shall be labeled in accordance with the requirements of § 205.55-5 of this subpart.

(2) Shall conform to the applicable noise emission standard established in § 205.52 of this regulation.

(b) The requirements of paragraph (a) apply to new products which conform to the definition of vehicles in these regulations and at the time such new products are assembled to that state of completeness in which the manufacturer distributes them in commerce.

(c) Subsequent manufacturers of a new product which conforms to the definition of vehicle in these regulations when received by them from a prior manufacturer, need not fulfill the requirements of paragraph (a)(1) where such requirements have already been complied with by a prior manufacturer.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, Dec. 5, 1977; 47 FR 57714, Dec. 28, 1982]

§ 205.55-2 Compliance with standards.

(a)(1) Prior to distribution in commerce of vehicles of a specific configuration, the first manufactures of such vehicles must verify such configurations in accordance with the requirements of this subpart.

(2) [Reserved]

(3) At any time following receipt of notice under this section with respect to a configuration, the Administrator may require that the manufacturer ship test vehicles to the EPA test facility in order for the Administrator to perform the tests required for production verification.

(b) The requirements for purposes of testing by the Administrator and selective enforcement auditing with regard to each vehicle configuration consist of:

(1) Testing in accordance with § 205.54 of a vehicle selected in accordance with § 205.57-2, and

(2) Compliance of the test vehicle with the applicable standard when tested in accordance with § 205.54.

(c)(1) In lieu of testing vehicles of every configuration as described in paragraph (b) of this section, the manufacturer may elect to verify the configuration based on representative testing, the requirements of which consist of:

(i) Grouping configurations into a category where each category will be determined by a separate combination of at least the following parameters (a manufacturer may use more parameters):

(*a*) *Engine type.*

(*1*) Gasoline—two stroke cycle.

(*2*) Gasoline—four stroke cycle.

(*3*) Diesel—two stroke cycle.

(*4*) Diesel—four stroke cycle.

(*5*) Rotary—wankel.

(*6*) Turbine.

(*7*) Other.

(*b*) *Engine manufacturer.*

(*c*) *Engine displacement.*

(*d*) *Engine configuration* (e.g., L-6, V-8, etc.).

(*e*) *Series* (i.e., cab design) including but not limited to conventional, cab over engine, and cab forward.

(ii) Identifying the configuration within each category which emits the highest sound pressure level (dBA) based on his best technical judgment and/or emission test data;

(iii) Testing in accordance with § 205.54 of a vehicle selected in accordance with § 205.57-2 which must be a vehicle of the configuration which is identified pursuant to paragraph (c)(1)(ii) of this section as having the highest sound pressure level (estimated or actual) within the category; and

(iv) Compliance of the test vehicle with applicable standards when tested in accordance with § 205.54.

(2) Where the requirements of paragraph (c)(1) are complied with, all those configurations contained within a category are considered represented by the tested vehicle.

(3) Where the manufacturer tests a vehicle configuration which has not been determined as having the highest sound pressure level of a category, but all other requirements of paragraph (c)(1) of this section are complied with all those configurations contained with that category which are determined to have sound pressure levels no greater than the tested vehicle are considered to be represented by the tested vehicle, however, a manufacturer must for purposes of Testing by the Administrator and Selective Enforcement Auditing verify according to the requirements of paragraphs (b)(1) and/or (c)(1) of this section any configurations in the subject category which have a higher sound pressure level than the vehicle configuration tested.

(d) [Reserved]

(e) The manufacturer may, at his option, proceed with any of the following alternatives with respect to any vehicle determined not in compliance with applicable standards.

(1) In the case of representative testing a new test vehicle from another configuration must be selected according to the requirements of paragraph (c) of this section, in order to verify the configurations represented by the non-compliant vehicle.

(2) Modify the test vehicle and demonstrate by testing that it meets applicable standards. The manufacturer must modify all production vehicles of the same configuration in the same manner as the test vehicle before distribution into commerce.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61458, Dec. 5, 1977; 47 FR 57714, Dec. 28, 1982; 48 FR 27040, June 13, 1983]

§ 205.55-3 Configuration identification.

(a) A separate vehicle configuration shall be determined by each combination of the following parameters:

(1) *Exhaust system configuration.* (i) Single vertical.

(ii) Dual vertical.

(iii) Single horizontal.

(iv) Dual horizontal.

(2) *Air induction system (engine).* (i) Natural.

(ii) Turbocharged.

(3) *Fan.* (i) Diameter.

(ii) Drive.

(*a*) Direct.

(*b*) Thermostatic.

(iii) Max fan rpm.

(4) *Engine manufacturer's horsepower rating.*

(5) *Cab characteristic.* (i) Sleeper.

(ii) Non sleeper.

(6) *Category parameters listed in § 205.55-2.*

§ 205.55-4 Labeling-compliance.

(a)(1) The manufacturer of any vehicle subject to the provisions of § 205.52 shall, at the time of manufacture, affix a permanent, legible label, of the type and in the manner described below, containing the information hereinafter provided, to all such vehicles to be distributed in commerce. The labels shall be affixed in such a manner that they cannot be removed without destroying or defacing them, and shall not be affixed to any equipment which is easily detached from such vehicle.

(2) A label shall be permanently attached, in a readily visible position, in the operator's compartment.

(3) Labels for vehicles not manufactured solely for use outside the United States shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(i) The label heading: Vehicle Noise Emission Control Information;

(ii) Full corporate name and trademark of manufacturer;

(iii) Month and year of manufacture;

(iv) The statement:

> This Vehicle Conforms to U.S. EPA Regulations for Noise Emission Applicable to Medium and Heavy Trucks.
>
> The following acts or the causing thereof by any person are prohibited by the Noise Control Act of 1972:
>
> (A) The removal or rendering inoperative, other than for purposes of maintenance, repair, or replacement, of any noise control device or element of design (listed in the owner's manual) incorporated into this vehicle in compliance with the Noise Control Act;
>
> (B) The use of this vehicle after such device or element of design has been removed or rendered inoperative.

(b) Labels for vehicles manufactured solely for use outside the United States shall contain the words "For Export Only."

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, 61458, Dec. 5, 1977. Redesignated at 47 FR 57715, Dec. 28, 1982]

§ 205.55–5 Labeling-exterior. [Reserved]

[41 FR 15544, Apr. 13, 1976. Redesignated at 47 FR 57715, Dec. 28, 1982]

§ 205.56 Testing by the Administrator.

(a)(1) The Administrator may require that any vehicles to be tested pursuant to the Act be submitted to him, at such place and time as he may reasonably designate and in such quantity and for such time as he may reasonably require for the purpose of conducting tests in accordance with test procedures described in § 205.54 to determine whether such vehicles or a manufacturer's test facility conform to applicable regulations. It is a condition of the requirements under this section that the manner in which the Administrator conducts such tests, the EPA test facility itself, and the test procedures he employs shall be based upon good engineering practice and meet or exceed the requirements of § 205.54 of the regulations.

(2) The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment of the type required by these regulations shall be made available by the manufacturer for test operations. The Administrator may conduct such tests with his own equipment, which shall equal or exceed the performance specifications of the instrumentation or equipment specified by the Administrator in these regulations.

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on vehicles produced by such manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any such vehicles before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator or other relevant information, the Administrator determines that the test facility does not meet the requirements of § 205.54-1 (a) and (b) he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) The manufacturer may at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility was in conformance. Such notice will not take effect until 15 days after receipt by the manufacturer, or if a hearing is requested under this paragraph, until adjudication by the hearing examiner.

(3) After any notification issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from such test facility will be acceptable for purposes of this part.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(5) The Administrator will notify the manufacturer of his determination and an explanation of the reasons underlying it with regard to the requalification of the test facility within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section.

(c)(1) The Administrator will assume all reasonable costs associated with shipment of vehicles to the place designated pursuant to paragraph (a) of this section except with respect to:

(i) [Reserved]

(ii) Testing of a reasonable number of vehicles for purposes of selective enforcement auditing under § 205.57 or testing of smaller numbers of vehicles, if the manufacturer has failed to establish that there is a correlation between its test facility and the EPA test facility or the Administrator has reason to believe, and provides the manufacturer a statement of such reasons, that the vehicles to be tested would fail to meet the standard prescribed in this subpart if tested at the EPA test facility, but would meet such standard if tested at the manufacturer's test facility;

(iii) Any testing performed during a period when a notice of nonconformance of the manufacturer's test facility issued pursuant to paragraph (b) of this section is in effect;

(iv) Any testing performed at place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this part.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61456, 61459, Dec. 5, 1977; 47 FR 57715, Dec. 28, 1982]

§ 205.57 Selective enforcement auditing requirements.

§ 205.57-1 Test request.

(a) The Administrator will request all testing under § 205.57 by means of a test request addressed to the manufacturer.

(1) Except as provided in paragraphs (a) (2) and (3) of this section, the Administrator will not issue to a manufacturer during any model year more test requests than a number determined by dividing the total number of vehicles subject to this regulation which the manufacturer projects he will produce during that model year by 25,000 and rounding to the next higher whole number: Except, that the Administrator may issue one additional test request beyond the annual limit to any manufacturer for each time a batch sequence for any category, configuration or subgroup thereof of such manufacturer's production is rejected in accordance with § 205.57-7.

(2) Any test request issued against a category, configuration or subgroup thereof which the Administrator has reason to believe does not meet the standards specified in § 205.52 will not be counted against the annual limit on test requests described in paragraph (a)(1) of this section. Any such request shall include a statement of the Administrator's reason for such belief.

(3) Any test request under which testing is not completed will not be counted against the annual limit on test requests described in paragraph (a)(1) of this section.

(b) The test request will be signed by the Assistant Administrator for Enforcement or his designee. The test request will be delivered by an EPA Enforcement Officer to the plant manager or other responsible official as designated by the manufacturer.

(c) The test request will specify the vehicle category, configuration or subgroup thereof selected for testing, the batch from which sampling is to begin, the batch size, the manufacturer's plant or storage facility from which the vehicles must be selected, the time at which a vehicle must be selected. The test request will also provide for situations in which the selected configuration or category is unavailable for testing. The test request may include an alternative category or configuration selected for testing in the event that vehicles of the first specified category or configuration are not available for testing because the vehicles are not being manufactured at the specified plant and/or are not being manufactured during the specified time or not being stored at the specified plant or storage facility.

(d) Any manufacturer shall, upon receipt of the test request, select and test a batch sample of vehicles from two consecutively produced batches of the vehicle category or configurations specified in the test request in accordance with these regulations and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer pursuant to a test request shall be initiated within such period as is specified within the test request: Except, that such initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in any 24-hour period do not permit testing: *Provided*, That these conditions for that period are recorded.

(2) The manufacturer shall complete emission testing on a minimum of five vehicles per day unless otherwise provided for by the Administrator or unless ambient test site conditions only permit the testing of a lesser number: Provided, that ambient test site weather conditions for that period are recorded.

(3) The manufacturer will be allowed 24 hours to ship vehicles from a batch sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant: Except, that the Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease to distribute into commerce vehicles of a specified category or configuration being manufactured at a particular facility if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator pursuant to this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease-to-distribute order shall not be issued under paragraph (f) of this section if such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with the provisions of a test request or any other requirements of this section. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment break-down or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any such order shall be issued only after a notice and opportunity for a hearing.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61459, Dec. 5, 1977; 43 FR 12326, Mar. 24, 1978]

§ 205.57-2 Test vehicle sample selection.

(a) Vehicles comprising the batch sample which are required to be tested pursuant to a test request in accordance with this subpart will be selected in the manner specified in the test request from a batch of vehicles of the category or configuration specified in the test request. If the test request specifies that the vehicles comprising the batch sample must be selected randomly, the random selection will be achieved by sequentially numbering all of the vehicles in the batch and then using a table of random numbers to select the number of vehicles as specified in paragraph (c) of this section based on the batch size designated by the Administrator in the test request. An alternative random selection plan may be used by a manufacturer: *Provided*, That such a plan is approved by the Administrator. If the test request does not specify that test vehicles must be randomly selected, the manufacturer shall select test vehicles consecutively.

(1) Should a situation arise in which the configuration to be tested consists of only vehicles with automatic transmissions, they shall be tested in accordance with § 205.54-1(c)(2).

(2) If the configuration to be tested consists of both automatic transmission and standard transmission vehicles, the test vehicle shall be a standard transmission vehicle unless the manufacturer has reason to believe that the automatic transmission vehicle emits a greater sound level.

(b) The Acceptable Quality Level is 10 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix I, Table II.

(c) The appropriate batch sample size will be determined by reference to

Appendix I, Table I and II. A code letter is obtained from Table I based on the batch size designated by the Administrator in a test request. The batch sample size will be obtained from Table II. The batch sample size will be equal to the maximum cumulative sample size for the appropriate code letter obtained from Table I plus an additional 10 percent rounded off to the next highest number.

(d) If the test request specifies that vehicles comprising the batch sample must be selected randomly, individual vehicles comprising the test sample will be randomly selected from the batch sample using the same random selection plan as in paragraph (a) of this section. Test sample size will be determined by entering Table II.

(e) The test vehicle of the category, configuration or subgroup thereof selected for testing shall have been assembled by the manufacturer for distribution in commerce using the manufacturer's normal production process in accordance with § 205.55-5(a).

(f) Unless otherwise indicated in the test request, the manufacturer will select the batch sample from the production batch, next scheduled after receipt of the test request, of the category or configuration specified in the test request.

(g) Unless otherwise indicated in the test request, the manufacturer shall select the vehicles designated in the test request for testing.

(h) At their discretion, EPA Enforcement Officers, rather than the manufacturer, may select the vehicles designated in the test request.

(i) The manufacturer will keep on hand all vehicles in the batch sample until such time as the batch is accepted or rejected in accordance with § 205.57-6: Except, that vehicles actually tested and found to be in conformance with these regulations need not be kept.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61459, Dec. 5, 1977; 47 FR 57715, Dec. 28, 1982; 48 FR 27039, June 13, 1983]

§ 205.57-3 Test vehicle preparation.

(a) Prior to the official test, the test vehicle selected in accordance with § 205-57-2 shall not be prepared, tested, modified, adjusted, or maintained in any manner unless such adjustments, preparation, modification and/or tests are part of the manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal vehicle assembly and inspection procedures or unless such adjustments and/or tests are required or permitted under this subpart or are approved in advance by the Administrator. For purposes of this section, prescribed manufacturing and inspection procedures include quality control testing and assembly procedures normally performed by the manufacturer on like products during early production so long as the resulting testing is not biased by the procedure. In the case of imported products the manufacturer may perform adjustments, preparations, modification and/or tests normally performed at the port of entry by the manufacturer to prepare the vehicle for delivery to a dealer or customer.

(b) Equipment or fixtures necessary to conduct the test may be installed on the vehicle: *Provided*, That such equipment or fixtures shall have no effect on the noise emissions of the vehicle, as determined by measurement methodology.

(c) In the event of vehicle malfunction (i.e., failure to start, misfiring cylinder, etc.) the manufacturer may perform the maintenance that is necessary to enable the vehicle to operate in a normal manner.

(d) No quality control, testing, assembly or selection procedures shall be used on the completed vehicle or any portion thereof, including parts and subassemblies, that will not normally be used during the production and assembly of all other vehicles of the category which will be distributed in commerce, unless such procedures are required or permitted under this subpart.

[47 FR 57715, Dec. 28, 1982; 48 FR 27039, June 13, 1983]

§ 205.57-4 Testing procedures.

(a) The manufacturer shall conduct one valid test in accordance with the test procedures specified in § 205.54 of this subpart for each vehicle selected for testing pursuant to this subpart.

(b) No maintenance will be performed on test vehicles except as provided for by § 205.57-3. In the event a vehicle is unable to complete the emission test, the manufacturer may replace the vehicle. Any replacement vehicle will be a production vehicle of the same configuration as the replaced vehicle. It will be randomly selected from the batch sample and will be subject to all the provisions of these regulations.

§ 205.57-5 Reporting of the test results.

(a) Within 5 working days after completion of testing of all vehicles in a batch sample the manufacturer shall submit to the Administrator a final report which will include the information required by the test request in the format stipulated in the test request in addition to the following:

(1) The name, location, and description of the manufacturer's emission test facilities which meet the specifications of § 205.54 and were utilized to conduct testing reported pursuant to this section: Except, that a test facility that has been described in a previous submission under this subpart need not again be described but must be identified as such.

(2) A description of the random vehicle selection method used, referencing any tables of random numbers that were used, name of the person in charge of the random number selection, if the vehicle test request specifies a random vehicle selection.

(3) The following information for each noise emission test conducted,

(i) The completed data sheet required by § 205.54 for all noise emission tests including: For each invalid test, the reason for invalidation.

(ii) A complete description of any modification, repair, preparation, maintenance, and/or testing which could affect the noise emissions of the vehicle and which was performed on the test vehicle but will not be performed on all other production vehicles.

(iii) The reason for the replacement where a replacement vehicle was authorized by the Administrator, and, if any, the test results for the replaced vehicles.

(4) A complete description of the sound data acquisition system if other than those specified in §§ 205.54-1(a) and 205.54-2(a).

(5) The following statement and endorsement:

> This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. To the best of ———— (company name) knowledge, all testing for which data are reported herein was conducted in strict conformance with applicable regulations under 40 CFR 205.1 et seq., all the data reported herein are a true and accurate representation of such testing and all other information reported herein is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.
>
> ————————————
>
> (authorized representative)

(b) All information required to be forwarded to the Administrator pursuant to this section shall be addressed to Director, Noise Enforcement Division (EN-387), U.S. Environmental Protection Agency, Washington, DC 20460.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61459, Dec. 5, 1977; 43 FR 12326, Mar. 24, 1978]

§ 205.57-6 Acceptance and rejection of batches.

(a) The batch from which a batch sample is selected will be accepted or rejected based upon the number of failing vehicles in the batch sample. A sufficient number of test samples will be drawn from the batch sample until the cumulative number of failing vehicles is less than or equal to the acceptance number or greater than or equal to the rejection number appropriate for the cumulative number of vehicles tested. The acceptance and rejection numbers listed in Appendix I, Table II at the appropriate code letter obtained according to § 205.57-2 will be used in determining whether the acceptance or rejection of a batch has occurred.

(b) Acceptance or rejection of a batch takes place when the decision that a vehicle is a failing vehicle is made on the last vehicle required to make a decision under paragraph (a) of this section.

§ 205.57-7 Acceptance and rejection of batch sequence.

(a) The manufacturer will continue to inspect consecutive batches until the batch sequence is accepted or rejected based upon the number of rejected batches. A sufficient number of consecutive batches will be inspected until the cumulative number of rejected batches is less than or equal to the sequence acceptance number of greater than or equal to the sequence rejection number appropriate for the cumulative number of batches inspected. The acceptance and rejection numbers listed in Appendix I, Table III at the appropriate code letter obtained according to § 205.57-2 will be used in determining whether the acceptance or rejection of a batch sequence has occurred.

(b) Acceptance or rejection of a batch sequence takes place when the decision that a vehicle is a failiing vehicle is made on the last vehicle required to make a decision under paragraph (a) of this section.

(c) If the batch sequence is accepted, the manufacture will not be required to perform any additional testing on vehicles from subsequent batches pursuant to the initiating test request.

(d) The Administrator may terminate testing earlier than required in paragraph (b) of this section based on a request by the manufacturer accompanied by voluntary cessation of distribution in commerce, of vehicles from the category, configuration or subgroup in question manufactured at the plant which produced the vehicles under test: *Provided*, That before reinitiating distribution in commerce of vehicles from such plant of such vehicle category, configuration or subgroup, the manufacturer must take the action described in § 205.57-9(a)(1) and (a)(2).

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61460, Dec. 5, 1977]

§ 205.57-8 Continued testing.

(a) If a batch sequence is rejected in accordance with paragraph (b) of § 205.57-7, the Administrator may require that any or all vehicles of tha category, configuration of subgroup thereof produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require such continued testing of vehicles pursuant to paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the selective enforcement audit was conducted properly; whether the criteria for batch sequence rejection in § 204.57-7 have been met; and, the appropriateness or scope of a continued testing order. In the event that a hearing is requested, the hearing shall begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress shall affect the reponsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested vehicle which demonstrated conformance with the applicable standards may be distributed into commerce.

(e) Any knowing distribution into commerce of a vehicle which does not comply with the applicable standards is a prohibited act.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61460, Dec. 5, 1977; 44 FR 54296, Sept. 19, 1979]

§ 205.57-9 Prohibition on distribution in commerce; manufacturer's remedy.

(a) The Administrator will permit the cessation of continued testing under § 205.57-8 once the manufacturer has taken the following actions:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the vehicles, describes the problem and describes the proposed quality control and/or quality assurance remedies to be taken by the manufacturer to correct the problem or follows the requirements for an engineering change. Such requirements include the following:

(i) Any change to a configuration with respect to any of the parameters stated in § 205.55-3 shall constitute the addition of a new and separate configuration or category to the manufacturer's product line.

(ii) When a manufacturer introduces a new category or configuration to his product line, he shall proceed in accordance with § 205.55-2.

(iii) If the configuration to be added can be grouped within a verified category and the new configuration is estimated to have a lower sound pressure level than a previously verified configuration within the same category, the configuration shall be considered verified.

(2) Demonstrates that the specified vehicle category, configuration or subgroup thereof has passed a retest conducted in accordance with § 205.57 and the conditions specified in the initial test request.

(3) The manufacturer may begin testing under paragraph (a)(2) of this section upon submitting such report, and may cease continued testing upon making the demonstration required by paragraph (a)(2) of this section, provided that the Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a)(1) and (2) of this section.

(b) Any vehicle failing the prescribed noise emission tests conducted pursuant to this Subpart B may not be distributed in commerce until necessary adjustments or repairs have been made and the vehicle passes a retest.

(c) No vehicles of a rejected batch which are still in the hands of the manufacturer may be distributed in commerce unless the manufacturer has demonstrated to the satisfaction of the Administrator that such vehicles do in fact conform to the regulations: Except, that any vehicle that has been tested and does, in fact, conform with these regulations may be distributed in commerce.

[41 FR 15544, Apr. 13, 1976, as amended at 42 FR 61460, Dec. 5, 1977; 47 FR 57715, Dec. 28, 1982]

§ 205.58 In-use requirements.

§ 205.58-1 Warranty.

(a) The vehicle manufacturer shall include the owner's manual or in other information supplied to the ulitmate purchaser the following statement:

NOISE EMISSIONS WARRANTY

(Name of vehicle manufacturer) warrants to the first person who purchases this vehicle for purposes other than resale and to each subsequent purchaser that this vehicle as manufactured by (names of vehicle manufacturer), was designed, built and equipped to conform at the time it left (name of vehicle manufacturer)'s control with all applicable U.S. EPA Noise Control Regulations.

This warranty covers this vehicle as designed, built and equipped by (Name of vehicle manufacturer), and is not limited to any particular part, component or system of the vehicle manufactured by (name of vehicle manufacturer). Defects in design, assembly or in any part, component or system of the vehicle as manufactured by (name of vehicle manufacturer), which, at the time it left (name of vehicle manufacturer)'s control, caused noise emissions to exceed Federal standards, are covered by this warranty for the life of the vehicle.

[41 FR 15544, Apr. 13, 1976, as amended at 47 FR 57715, Dec. 28, 1982; 48 FR 27040, June 13, 1983]

§ 205.58-2 Tampering.

(a) For each configuration of vehicles covered by this part, the manufacturer shall develop a list of those acts which, in his judgment, might be done to the vehicle in use and which would constitute the removal or rendering inoperative of noise control devices or elements of design of the vehicle.

(b) The manufacturer shall include in the owner's manual the following information:

(1) The statement:

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof:

(1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been re-

moved or rendered inoperative by any person.

(2) The statement:

> Among those acts presumed to constitute tampering are the acts listed below.

Immediately following this statement, the manufacturer shall include the list developed under paragraph (a) of this section.

(c) Any act included in the list prepared pursuant to paragraph (a) of this section is presumed to constitute tampering; however, in any case in which a proscribed act has been committed and it can be shown that such act resulted in no increase in the noise level of the vehicle or that the vehicle still meets the noise emission standard of § 205.52, such act will not constitute tampering.

(d) The provisions of this section are not intended to preclude any State or local jurisdiction from adopting and enforcing its own prohibitions against the removal or rendering inoperative of noise control systems on vehicles subject to this part.

[41 FR 15544, Apr. 13, 1976, as amended at 47 FR 57715, Dec. 28, 1982; 48 FR 27040, June 13, 1983]

§ 205.58–3 Instructions for maintenance, use and repair.

(a)(1) The manufacturer shall provide to the ultimate purchaser of each vehicle covered by this subpart written instructions for the proper maintenance, use and repair of the vehicle in order to provide reasonable assurance of the elimination or minimization of noise emission degradation throughout the life of the vehicle.

(2) The purpose of the instructions is to inform purchasers and mechanics of those acts necessary to reasonably assure that degradation of noise emission level is eliminated or minimized during the life of the vehicle. Manufacturers should prepare the instructions with this purpose in mind. The instructions should be clear and, to the extent practicable, written in nontechnical language.

(3) The instructions must not be used to secure an unfair competitive advantage. They should not restrict replacement equipment to original equipment or service to dealer service. Manufacturers who so restrict replacement equipment should be prepared to make public any performance specifications on such equipment.

(b) For the purpose of encouraging proper maintenance, the manufacturer shall provide a record or log book which shall contain a schedule for the performance of all required noise emission control maintenance. Space shall be provided in this record book so that the purchaser can note what maintenance was done, by whom, where and when.

[41 FR 15544, Apr. 13, 1976, as amended at 47 FR 57716, Dec. 28, 1982]

§ 205.59 Recall of noncomplying vehicles.

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to recall and repair or modify any vehicle distributed in commerce not in compliance with this subpart.

(b) A recall order issued pursuant to this section shall be based upon a determination by the Administrator that vehicles of a specified category or configuration have been distributed in commerce which do not conform to the regulations. Such determination may be based on:

(1) A technical analysis of the noise emission characteristics of the category or configuration in question; or

(2) Any other relevant information, including test data.

(c) For the purposes of this section, noise emissions may be measured by any test prescribed in § 205.54 for testing prior to sale or any other test which has been demonstrated to correlate with the prescribed test procedure.

(d) Any such order shall be issued only after notice and an opportunity for a hearing.

(e) All costs, including labor and parts, associated with the recall and repair or modification of non-complying vehicles under this section shall be borne by the manufacturer.

(f) This section shall not limit the discretion of the Administrator to take any other actions which are authorized by the Act.

APPENDIX I TO SUBPART B

TABLE I—SAMPLE SIZE CODE LETTERS

Batch size	Code letter
4 to 8	A.
9 to 15	B.
16 to 25	C.
26 and larger	D.

TABLE II—SAMPLING PLANS FOR INSPECTING BATCHES

Sample size code letter	Test sample	Test sample size	Cumulative test sample size	Batch inspection criteria	
				Acceptance No.	Rejection No.
A	1st	4	4	0	1
B	1st	3	3	0	1
C	1st	3	3	0	2
	2d	3	6	1	2
D	1st	2	2	(1)	2
	2d	2	4	(1)	2
	3d	2	6	0	2
	4th	2	8	0	3
	5th	2	10	1	3
	6th	2	12	1	3
	7th	2	14	2	3

[1] Batch acceptance not permitted at this sample size.

TABLE III—BATCH SEQUENCE PLANS

Sample size code letter	Number of batches	Cumulative number of batches	Sequence inspection criteria	
			Acceptance No.	Rejection No.
A	2	2	1	(2)
	2	4	2	4
	2	6	3	5
	2	8	4	5
B	2	2	0	(2)
	2	4	1	4
	2	6	2	5
	2	8	3	5
	2	10	4	6
	2	12	5	6
C	2	2	(1)	2
	2	4	0	2
	2	6	0	3
	2	8	1	3
	2	10	2	4
	2	12	3	4
D	2	2	0	2
	2	4	1	3
	2	6	2	4
	2	8	3	4

[1] Batch sequence acceptance not permitted for this number of batches.
[2] Batch sequence rejection not permitted for this number of batches.

TABLE IV—RECOMMENDED FORMAT FOR VEHICLE NOISE DATA SHEET

Test Report Number: ______ Manufacturer: ______

VEHICLE:

Trade Name: ______ VIN: ______

best copy available

TABLE IV—RECOMMENDED FORMAT FOR VEHICLE NOISE DATA SHEET—Continued

odel Year: ______ Other Reference No: ______
Configuration Identification: ______ Category Identification: ______
Test Site Identification and Location: ______
NSTRUMENTATION:
Microphone Manufacturer: ______ Model No: ______ Serial No: ______
Sound Level Manufacturer: ______ Model No: ______ Serial No: ______
Calibrator Manufacturer: ______ Model No: ______ Serial No: ______
Other and Manufacturer: ______ Model No: ______ Serial No: ______
EST DATA:
pproach Gear: ______ Date of Test: ______
pproach RPM: ______ Temp: ______ Wind: ______
Acceleration Test: ______
Deceleration Test: ______

Acceleration Test

	Run No.				
	1	2	3	4	5
BA Left ______					
Right ______					
ghest RPM attained in End Zone					
Calculated Sound Pressure ______ dBA					

Deceleration Test with Exhaust Brake Applied

A Left ______					
Right ______					
Calculated Sound Pressure ______ dBA					

EST Personnel: ______
(Name)
corded By: ______ Date: ______
(Signature)
pervisor: ______ Title: ______
(Signature)

1 FR 15544, Apr. 13, 1976, as amended at 42 FR 61460, Dec. 5, 1977]

Subpart C—[Reserved]

Subpart D—Motorcycles

SOURCE: 45 FR 86708, Dec. 31, 1980, unless
herwise noted.

205.150 Applicability.

(a) Except as otherwise provided in
ese regulations, the provisions of
is subpart apply to 1983 and subse-
ent model year motorcycles manu-
ctured after December 31, 1982,
ich meet the definition of "new
oduct" in the Act.

(b) The provisions of this subpart do
t apply to electric or battery-pow-
ed motorcycles.

c) Except as provided in § 205.158,
e provisions of this subpart do not apply to competition motorcycles as defined in § 205.151(a)(3).

§ 205.151 Definitions.

(a) As used in this subpart and in Subpart E, all terms not defined herein shall have the meaning given them in the Act or in Subpart A of this part.

(1) "Motorcycle" means any motor vehicle, other than a tractor, that:

(i) Has two or three wheels;

(ii) Has a curb mass less than or equal to 680 kg (1499 lb); and

(iii) Is capable, with an 80 kg (176 lb) driver, of achieving a maximum speed of at least 24 km/h (15 mph) over a level paved surface.

(2) "Street motorcycle" means:

(i) Any motorcycle that:

(A) With an 80 kg (176 lb) driver, is capable of achieving a maximum speed of at least 40 km/h (25 mph) over a level paved surface; and

(B) Is equipped with features customarily associated with practical street or highway use, such features including but not limited to any of the following: stoplight, horn, rear view mirror, turn signals: or

(ii) Any motorcycle that:

(A) Has an engine displacement less than 50 cubic centimeters;

(B) Produces no more than two brake horse power;

(C) With a 80 kg (176 lb) driver, cannot exceed 48 km/h (30 mph) over a level paved surface.

(3) "Competition motorcycle" means any motorcycle designed and marketed solely for use in closed course competition events.

(4) "Off-road motorcycle" means any motorcycle that is not a street motorcycle or competition motorcycle.

(5) "Acceleration test procedure" means the measurement methodologies specified in Appendix I.

(6) "Acceptable quality level" (AQL) means the maximum allowable average percentage of vehicles or exhaust systems that can fail sampling inspection under a Selective Enforcement Audit.

(7) "Acoustical Assurance Period" (AAP) means a specified period of time or miles driven after sale to the ultimate purchaser during which a newly manufactured vehicle or exhaust system, properly used and maintained, must continue in compliance with the Federal standard.

(8) "Advertised Engine Displacement" means the rounded off volumetric engine capacity used for marketing purposes by the motorcycle manufacturer.

(9) "Category" means a group of vehicle configurations which are identical in all material aspects with respect to the parameters listed in § 205.157-2 of this subpart.

(10) "Class" means a group of vehicles which are identical in all material aspects with respect to the parameters listed in § 205.155 of this subpart.

(11) "Closed course competition event" means any organized competition event covering an enclosed, repeated or confined route intended for easy viewing of the entire route by all spectators. Such events include short track, dirt track, drag race, speedway, hillclimb, ice race, and the Bonneville Speed Trials.

(12) "Closing rpm" means the engine speed in Figure 2 of Appendix I.

(13) "Configuration" means the basic classification unit of a manufacturer's product line and is comprised of all vehicle designs, models or series which are identical in all material aspects with respect to the parameters listed in § 205.157-3 of this subpart.

(14) "Engine displacement" means volumetric engine capacity as defined in § 205.153.

(15) "Exhaust system" means the combination of components which provides for the enclosed flow of exhaust gas from the engine exhaust port to the atmosphere. "Exhaust system" further means any constituent components of the combination which conduct exhaust gases and which are sold as separate products. "Exhaust System" does not mean any of the constituent components of the combination, alone, which do not conduct exhaust gases, such as brackets and other mounting hardware.

(16) "Failing vehicle" means a vehicle whose noise level is in excess of the applicable standard.

(17) "Maximum rated RPM" means the engine speed measured in revolutions per minute (RPM) at which peak net brake power (SAE J-245) is developed for motorcycles of a given configuration.

(18) "Model specific code" means the designation used for labeling purposes in §§ 205.158 and 205.169 for identifying the motorcycle manufacturer, class, and "advertised engine displacement," respectively.

(19) "Model year" means the manufacturer's annual production period which includes January 1 of any calendar year, or if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

(20) "Motorcycle noise level" means the A-weighted noise level of a motorcycle as measured by the acceleration test procedure.

(21) "Noise control system" means any vehicle part, component or system, the purpose of which includes control or the reduction of noise emitted from a vehicle, including all exhaust system components.

(22) "Noise emission standard" means the noise levels in § 205.152 or § 205.166.

(23) "Noise emission test" means a test conducted pursuant to a measurement methodology specified in this subpart.

(24) [Reserved]

(25) "Serial number" means the identification number assigned by the manufacturer to a specific production unit.

(26) "Tampering" means the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any product in compliance with regulations under section 6, prior to its sale or delivery to the ultimate purchaser or while it is in use; or the use of a product after such device or element of design has been removed or rendered inoperative by any person.

(27) "Test vehicle" means a vehicle in a Selective Enforcement Audit test sample.

(28) "Tractor" means for the purposes of this subpart, any two or three wheeled vehicle used exclusively for agricultural purposes, or for snow plowing, including self-propelled machines used exclusively in growing, harvesting or handling farm produce.

(29) "Vehicle" means any motorcycle regulated pursuant to this subpart.

(30) "Warranty" means the warranty required by section 6(d)(1) of the Act.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57720, Dec. 28, 1982]

§ 205.152 Noise emission standards.

(a) *Noise emission standards.* (1) Street motorcycles of the following and subsequent model years must not produce noise emissions in excess of the levels indicated:

(i) Street motorcycles other than those that meet the definition of § 205.151(a)(2)(ii):

Model year	A-weighted noise level (dB)
(A) 1983	83
(B) 1986	80

(ii) Street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

Model year	A-weighted noise level (dB)
(A) 1983	70

(2) Off-road motorcycles of the following and subsequent model years must not produce noise emissions in excess of the levels indicated:

(i) Off-road motorcycles with engine displacements of 170 cc and lower:

Model year	A-weighted noise level (dB)
(A) 1983	83
(B) 1986	80

(ii) Off-road motorcycles with engine displacements greater than 170 cc:

Model year	A-weighted noise level (dB)
(A) 1983	86
(B) 1986	82

(3) Street motorcycles must be designed, built and equipped so that, when properly maintained and used, they will not produce noise emissions in excess of the levels specified in paragraph (a)(1) of this section, for an Acoustical Assurance Period of one year or a distance of 6000 km (3730 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(4) Off-road motorcycles must be designed, built and equipped so that, when properly maintained and used, they will not produce noise emissions in excess of the levels specified in paragraph (a)(2) of this section, for an Acoustical Assurance Period of one year or a distance of 3000 km (1865

mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(5) At the time of sale to the ultimate purchaser, all products must comply with the standards set forth in paragraphs (a)(1) and (2) of this section.

(b) *Measurement procedure.* (1) The standards set forth in paragraph (a) of this section refer to noise emissions as measured in accordance with the measurement methodology specified in Appendix I-1 for all motorcycles except those street motorcycles that meet the definition of § 205.151(a)(2)(ii).

(2) The standards set forth in paragraph (a) of this section for street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles) refer to noise emissions measured in accordance with the measurement methodology specified in Appendix I-2.

(c) *Low noise emission product standard.* For the purpose of Low-Noise-Emission Product certification pursuant to 40 CFR Part 203, motorcycles procured by the Federal government after the following dates must not produce noise emissions in excess of the noise levels indicated:

(1) For street motorcycles with engine displacement greater than 170 cc:

Date	A-weighted noise level (dB)
(i) January 1, 1982	73
(ii) January 1, 1989	71

(2) For off-road motorcycles with engine displacements greater than 170 cc:

Date	A-weighted noise level (dB)
(i) January 1, 1982	75

(3) For off-road motorcycles with engine displacement 170 cc and lower and street motorcycles with engine displacement 170 cc and lower that do not meet the definition of § 205.151(a)(2)(ii):

Date	A-weighted noise level (dB)
(i) January 1, 1982	71

(4) For street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

Date	A-weighted noise level (dB)
(i) January 1, 1982	60

These levels refer to noise emissions as measured in accordance with the measurement methodologies specified in Appendix I. LNEP's must also meet all requirements contained in paragraphs (a)(3), (4), and (5), of this section.

(Secs. 10 and 15 of the Noise Control Act, (42 U.S.C. 4909, 4914))

§ 205.153 Engine displacement.

(a) Engine displacement must be calculated using nominal engine values and rounded to the nearest whole cubic centimeter, in accordance with American Society for Testing Materials (ASTM) E 29-67.

(b) For rotary engines, displacement means the maximum volume of a combustion chamber between two rotor tip seals minus the minimum volume of that combustion chamber between those two rotor seals times three times the number of rotors.

cc = (Maximum chamber volume − minimum chamber volume) × 3 × number of rotors.

§ 205.154 Consideration of alternative test procedures.

The Administrator may approve applications from manufacturers of motorcycles for the approval of test procedures which differ from those contained in this subpart so long as the alternative procedures have been demonstrated to correlate with the prescribed procedure. To be acceptable, alternative test procedures must be such that the test results obtained will identify all those test motorcycles which would not comply with the noise emission standards prescribed in § 205.152 when tested in accordance with the measurement methodology specified in Appendix I. After approval by the Administrator, testing conducted by manufacturers using alternative test procedures will be accepted by the Administrator for all purposes including, but not limited to, selective enforcement audit testing.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57720, Dec. 28, 1982]

§ 205.155 Motorcycle class and manufacturer abbreviation.

(a) Motorcycles must be grouped into classes determined by separate combinations of the following parameters:

(1) Engine type:

(i) Gasoline—two stroke.

(ii) Gasoline—four stroke.

(iii) Gasoline—rotary.

(iv) Other.

(2) Engine displacement.

(3) Engine configuration:

(i) Number of cylinders.

(ii) Cylinder arrangement (i.e., in line, opposed, etc.).

(4) Exhaust system:

(i) Muffler: (A) Type, (B) Location, (C) Number.

(ii) Expansion chambers: (A) Location, (B) Size.

(iii) Spark arrestors.

(iv) Other exhaust system components.

§ 205.156 [Reserved]

§ 205.157 Requirements.

[47 FR 57720, Dec. 28, 1982]

§ 205.157–1 General requirements.

(a) Each manufacturer of vehicles manufactured for distribution in commerce in the United States which are subject to the standards prescribed in this subpart and not exempted in accordance with Subpart A, § 205.5:

(1) Shall be labeled in accordance with the requirements of § 205.158 of this subpart.

(2) Must ensure that each vehicle conforms to the applicable noise emission standard establishd in § 205.152 of this subpart.

(b) The requirements of paragraph (a) of this section apply to new products which conform to the definition of vehicles in these regulations and at the time such new products are assembled to that state of completeness in which the manufacturer sends them to a subsequent manufacturer or otherwise distributes them in commerce.

(c) Subsequent manufacturers of a new product which conforms to the definition of vehicle in these regulations when received by them from a prior manufacturer, need not fulfill the requirements of paragraph (a)(1) of this section where such requirements have already been complied with by a prior manufacturer.

(d) The manufacturer who is required to conduct product verification testing to demonstrate compliance with a particular standard, must satisfy all other provisions of this subpart applicable to that standard, including but not limited to, record keeping, reporting and in-use requirements.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57720, Dec. 28, 1982]

§ 205.157–2 Compliance with standards.

(a)(1) Prior to distribution in commerce of vehicles of a specific configuration, the first manufacturer of such vehicle must verify such configurations in accordance with the requirements of this subpart.

(2) [Reserved]

(3) At any time following receipt of notice under paragraph (a)(2)(iii) of this section with respect to a configuration, the Administrator may require that the manufacturer ship test vehicles to an EPA test facility for the required production verification testing.

(b) The requirements for purposes of testing by the Administrator and selective enforcement auditing with regard to each vehicle configuration consist of:

(1) Testing in accordance with § 205.160–4 of a vehicle selected in accordance with § 205.160–2.

(2) Compliance of the test vehicle with the applicable standard when tested in accordance with § 205.160–4.

(c)(1) In lieu of testing vehicles of every configuration as described in paragraph (b) of this section, the manufacturer may elect to verify the configuration based on representative testing. The requirements of representative testing are:

(i) Grouping configurations into categories where each category is determined by a separate combination of at least the following parameters (a manufacturer may use more parameters):

(A) Engine type: *(1)* Gasoline-two stroke; *(2)* gasoline-four stroke; *(3)* gasoline-rotary; and *(4)* other.

(B) Engine displacement.

(C) Engine configuration: *(1)* Number of cylinders; and *(2)* cylinder arrangement (i.e., in line, opposed, etc.)

(ii) Identifying the configuration within each category which emits the highest A-weighted sound level (in dB).

(iii) Testing in accordance with § 205.160-4 of a vehicle selected in accordance with § 205.160-2 which much be a vehicle of the configuration which is identified pursuant to paragraph (c)(1)(ii) of this section as having the highest sound pressure level (estimated or actual) within the category.

(iv) Demonstrating compliance of that vehicle with the applicable standard when tested in accordance with the test procedure specified in Appendix I.

(2) Where the requirements of paragraph (c)(1) of this section are complied with, all those configurations contained within a category are considered represented by the tested vehicle.

(3) Where the manufacturer tests a vehicle configuration which has not been determined as having the highest sound pressure level of a category, but all other requirements of paragraph (c)(1) of this section are complied with, all those configurations contained within that category which are determined to have sound pressure levels not greater than the tested vehicle are considered to be represented by the tested vehicle; however, a manufacturer must for purposes of Testing by the Administrator and Selective Enforcement Auditing verify according to the requirements of (b)(1) and/or (c)(1) of this section any configurations in the subject category which have a higher sound pressure level than the vehicle configuration tested.

(d) A manufacturer may elect for purposes of Testing by the Administrator and Selective Enforcement Auditing to use representative testing pursuant to paragraph (c) of this section for all or part of his product line.

(e) The manufacturer has the following alternatives if any test vehicle is determined to not be in compliance with applicable standards:

(1) In the case of representative testing, a new test vehicle from another configuration must be selected according to the requirements of paragraph (c) of this section, in order to verify the configurations represented by the non-compliant vehicle.

(2) Modify the test vehicle and demonstrate by testing that it meets applicable standards. The manufacturer must modify all production vehicles of the same configuration in the same manner as the test vehicle before distribution into commerce.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57720, Dec. 28, 1982]

§ 205.157–3 Configuration identification

(a) A separate vehicle configuration shall be determined by each combination of the following parameters:

(1) Exhaust system (engine): (i) Mufflers; (ii) expansion chambers, (iii) spark arrestors; and (iv) other exhaust system components.

(2) Air induction system (engine): (i) Intake muffler; (ii) intake ducting; and (iii) air cleaner element.

(3) Vehicle drive train: (i) Chain; and (ii) shaft.

(4) Transmission gear ratio: (i) Standard transmission; and (ii) automatic transmission.

(5) Cooling system configuration: (i) Natural air cooled; (ii) liquid cooled; and (iii) forced air cooled.

(6) Category parameters listed in § 205.157-2.

(b) [Reserved]

§ 205.158 Labeling requirements.

(a)(1) The manufacturer of any vehicle subject to this subpart must, at the time of manufacture, affix a label, of the type specified in paragraphs (a)(2), 3), and (4) of this section, to all such ehicles to be distributed in commerce.

(2) The label must be plastic or etal and be welded, riveted, or other- ise permanently attached in a readily isible position.

(3) The label must be affixed by the ehicle manufacturer to the vehicle in ich a manner that the label cannot e removed without destroying or de- acing it, and must not be affixed to ny piece of equipment that is easily etached from such vehicle.

(4) The label must be lettered in the nglish language in legible block let- ers and numerals, which must be of a olor that contrasts with the back- round of the label.

(5) The label must contain the fol- wing information:

(i) The label heading: Motorcycle oise Emission Control Information;

(ii) The statement:

> This —— (model year) ——— (model spe- fic code) motorcycle, —— (serial number), eets EPA noise emission requirements of — (noise emission standard) dBA at —— losing rpm) rpm by the Federal test proce- ure. Modifications which cause this motor- cle to exceed Federal noise standards are ohibited by Federal law. See owner's anual.

(6) The model specific code is limited ten spaces which includes three aces for the manufacturer's abbre- ation (see paragraph (a)(7) of this ction), three spaces for the class entification, and four spaces for the dvertised engine displacement respec- vely.

(7) All motorcycle manufacturers all use the following abbreviations their model specific code.

W	BMW
ltaco	BUL
n-Am Bombardier	CAB
aparral	CHA
eeta	CHE
cati	DUC
x	FOX
rley Davidson	HAR
ald	HEA
rcules	HER
daka	HOD
nda	HON
sqvarna	HUS
WA/CZ	JAW
wasaki	KAW
M	KTM
verda	LAV
to Benilli	BEN
to Guzzi	GUZ
Moto Morini	MOR
MV Agusta	MVA
Norton Triumph	TRI
Rokon	ROK
Suzuki	SUZ
Yamaha	YAM

(8) Moped manufacturers only shall use the following abbreviations in their model specific code.

AMF	AMF
Benelli	BEL
Califfo	CAL
Carabela	CAR
Cimatti	CIM
Columbia	COL
E-Z Rider	EZR
Flying Dutchman	FLY
Foxi	FOI
Gadabout	GAD
Garelli	GAR
Gitane	GIT
Honda	HON
Indian	IND
Intramotor	INT
Italvelo	ITA
Kreidler	KRE
Lazer	LAZ
Malagati	MAL
Morini	MOI
Motobecane/Solex	MBE
Moto Guzzi	GUZ
Negrini	NEG
Odyssey	ODY
Pacer	PAC
Pack-A-Way	PAK
Peugeot	PEU
Puch	PUC
Riviera	RIV
Sachs	SAC
Safari	SAF
Scorpion	SCO
Smily	SMI
Snark	SNA
Sori II	SON
Speed Bird	SPE
Sprinter	SPR
SuVega	SUV
Tomas	TOM
Vaespa	VES
Yankee Peddler	YAN

(9) If a new motorcycle manufacturer begins production of vehicles subject to this regulation, the Administrator will assign him a 3-letter manufacturer abbreviation as soon as reasonably practical after his existence is known to the Agency.

(b) Any vehicle manufactured in the United States solely for use outside the United States must be clearly labeled in accordance with the provisions of paragraphs (a)(2), (3), and (4) of this section with the statement: "For Export Only".

(c) Any competition motorcycle as defined in § 205.151(a)(3), shall be labeled in accordance with the provisions of paragraphs (a)(1), (2), (3) and (4) of this section with the statement:

> This motorcycle is designed for closed course competition use only. It does not conform to U.S. EPA motorcycle noise standards.

(d) It will be permissible for manufacturers to meet the requirements of this section by consolidating these labeling requirements with other government labeling requirements in one or more labels, provided the provisions of paragraphs (a)(2), (3) and (4) of this section are met.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57721, Dec. 28, 1982]

§ 205.159 Testing by the Administrator.

(a)(1) In order for the Administrator to determine whether such vehicles or a manufacturer's test facility conform to applicable regulations, the Administrator may require that vehicles to be tested pursuant to the Act be submitted to him, at such place and time as he reasonably designates. He may designate the quantity of vehicles and the duration of time he reasonably requires for the purpose of conducting tests in accordance with test procedures described in Appendix I. The manner in which the Administrator conducts such tests, the EPA test facility, and the test procedures employed will be based upon good engineering practice and meet or exceed the requirements of Appendix I of the regulations.

(2) If the Administrator specifies that he will conduct such testing at the manufacturer's facility, the manufacturer shall make available instrumentation and equipment of the type required for test operations by these regulations. The Administrator may conduct such tests with his own equipment, having specifications equal to or exceeding the performance specifications of the instrumentation and equipment required in these regulations.

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on vehicles produced by the manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any of the vehicles before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator, or on other relevant information, the Administrator determines that the test facility does not meet the requirements of Appendix I (or the requirements for an alternative test procedure approved under § 205.154), the Administrator will give notice to the manufacturer in writing of his determination and the reasons underlying it.

(2) The manufacturer may, at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section, request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility met the requirements as specified in Appendix I (or the alternative procedure). Such notice will not take effect until 15 days after its receipt by the manufacturer or, if a hearing is requested under this paragraph, until adjudication by the Administrative law judge.

(3) After any notice issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from that test facility will be acceptable for purposes of this subpart.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and that those changes have resolved the reasons for disqualification.

(5) Within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section, the Administrator will notify the manufacturer of his determination and of the reasons underlyng it with regard to the requalification of the test facility.

(c) The Administrator will assume all reasonable costs associated with shipment of vehicles to the place designated pursuant to paragraph (a) of this section except with respect to:

(1) Any production verification testing performed at a place other than the manufacturer's facility as provided

ı § 205.157-2(a), or as a result of the
ıanufacturer's not owning or having
ccess to a test facility;

(2) Testing of a reasonable number
f vehicles (i) for purposes of selective
nforcement auditing under § 205.160,
i) or if the manufacturer has failed
establish that there is a correlation
etween its test facility and the EPA
st facility, (iii) or the Administrator
as reason to believe, and provides the
anufacturer with a statement of
ich reason, that the vehicles to be
sted would fail to meet the standard
escribed in this subpart if tested at
e EPA test facility even though they
ould meet such standard if tested at
e manufacturer's test facility;

(3) Any testing performed during a
riod when a notice issued pursuant
paragraph (b) of this section is in
fect;

(4) Any testing performed at a place
her than the manufacturer's facility
a result of the manufacturer's fail-
e to permit the Administrator to
nduct or monitor testing as required
this subpart; and

(5) Testing of up to 10 percent of the
anufacturer's test vehicles for a
odel year if the Administrator deter-
nes testing these vehicles at the
A test site is necessary to assure
at a manufacturer has acted or is
ting in compliance with the Act.

FR 86708, Dec. 31, 1980, as amended at
FR 57721, Dec. 28, 1982]

05.160 Selective enforcement auditing (SEA) requirements.

05.160-1 Test request.

a) The Administrator will request
testing under § 205.160 by means of
est request addressed to the manu-
turer.

b) The test request will be signed by
Assistant Administrator for En-
cement or his designee. The test re-
est will be delivered to the plant
nager or other responsible official
designated by the manufacturer.

c) The test request will specify the
icle category, configuration or con-
uration subgroup selected for test-
, the manufacturer's plant or stor-
facility from which the vehicles
st be selected, and the time at
ich the vehicles must be selected. The test request will also provide for situations in which the selected category, configuration, or configuration subgroup is unavailable for testing. The test request may include an alternative category, configuration, or configuration subgroup designated for testing in the event that vehicles of the first specified category, configuration, or configuration subgroup are not available for testing because the vehicles are not being manufactured at the specified plant, are not being manufactured during the specified time, or are not being stored at the specified plant or storage facility.

(d)(1) If the manufacturer projects a yearly production of fewer than 50 vehicles of the specified category, configuration or configuration subgroup to be tested, then within five (5) days of receipt of the request, the manufacturer must notify the Administrator of such low volume production. The Administrator will then provide a revised test request specifying a testing plan which imposes no greater risk of failure (5%) at the acceptable quality level (10%) than the plan in Appendix II. Upon receipt of the revised test request, the manufacturer must select and test a sample of vehicles from the category, configuration or configuration subgroup specified in the test request in accordance with this subpart and the conditions specified in the test request.

(2) If the manufacturer produces 50 or more vehicles of the specified category, configuration or configuration subgroup per year, then upon receipt of the test request, the manufacturer must select and test a sample of vehicles from the category, configuration or configuration subgroup specified in the test request in accordance with this subpart and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer under a test request must be initiated within the time period specified in the test request; except that initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in that 24-hour period, do not permit testing. The manufacturer must record the conditions for this period.

(2) The manufacturer must complete noise emission testing on a minimum of ten vehicles per day unless otherwise provided by the Administrator or unless ambient test site conditions permit only the testing of a lesser number in which case the ambient test site weather conditions for that period must be recorded.

(3) The manufacturer is allowed 24 hours to ship vehicles from a sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant. The Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease distribution in commerce of vehicles of a specified category, configuration, or configuration subgroup being manufactured at a particular facility, if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator under this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease distribution order will not be issued under paragraph (f) of this section if the manufacturer's refusal is caused by conditions and circumstances outside his control which render compliance with the provisions of a test request or with any other requirements of this section impossible. Conditions and circumstances outside the control of the manufacturer include, but are not limited to, the temporary unavailability of equipment and personnel needed to conduct the required tests caused by uncontrollable factors, such as equipment breakdown or failure or illness of personnel. Failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests do not constitute uncontrollable factors. The manufacturer must bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any order to cease distribution will be issued only after a notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

§ 205.160–2 Test sample selection and preparation.

(a) Vehicles comprising the sample which are required to be tested under a test request in accordance with this subpart must be selected consecutively as they are produced. Before the official test, the test vehicle must not be prepared, tested, modified, adjusted, or maintained in any manner unless such preparation, tests, modifications, adjustments or maintenance are part of the manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal vehicle assembly and inspection procedures, are required or permitted under this subpart, or are approved in advance by the Administrator. For purposes of this section, prescribed manufacturing and inspection procedures include quality control testing and assembly procedures normally performed by the manufacturer on like products during early production if the resulting testing is not biased by this procedure. In the case of imported products, the manufacturer may perform adjustments, preparations, modification or tests normally performed at the port of entry by the manufacturer to prepare the vehicle for delivery to a dealer or customer.

(1) Equipment or fixtures necessary to conduct the test may be installed on the vehicle if such equipment or fixtures have no effect on the noise emissions of the vehicle, as determined by the measurement methodology.

(2) In the event of a vehicle malfunction (i.e., failure to start, etc.) the manufacturer may perform the maintenance that is necessary to enable the vehicle to operate in a normal manner. This maintenance must be documented and reported in the SEA report.

(3) No quality control, quality assurance testing, assembly or selection procedures may be used on the test vehicle or any portion of the test vehicle including parts and subassemblies, unless such quality control, quality assurance testing, assembly or selection

ocedures are used normally during
e production and assembly of all
her vehicles of this configuration
hich will be distributed in commerce,
e required or permitted under this
bpart or are approved in advance by
e Administrator.

4) If a vehicle is unable to complete
e noise tests, the manufacturer may
place the vehicle. Any replacement
hicle must be a production vehicle
the same configuration as the re-
aced vehicle or a noisier configura-
n and will be subject to all the pro-
sions of these regulations. Any re-
acement must be reported in the
A report.

b) The Acceptable Quality Level
QL) is 10 percent. The appropriate
mpling plans associated with the
signated AQL are contained in Ap-
ndix II or the test request.

c) The vehicles of the category, con-
uration or configuration subgroup
ected for testing must be assembled
the manufacturer for distribution
commerce using the manufacturer's
rmal production process.

d) Unless otherwise indicated in the
t request, the manufacturer must
tiate testing with the vehicles of the
egory, configuration or configura-
n subgroup specified in the test re-
est which are next scheduled for
oduction after receipt of the test re-
est.

e) The manufacturer must keep on
nd all products in the test sample
til the sample is accepted or reject-
in accordance with § 205.160-6;
cept that vehicles actually tested
d found to be in conformance with
is regulation need not be kept.

FR 86708, Dec. 31, 1980, as amended at
FR 57721, Dec. 28, 1982]

05.160-3 [Reserved]

05.160-4 Testing procedures.

a) The manufacturer must conduct
e valid test in accordance with the
propriate test procedures specified
Appendix I, on each vehicle selected
testing under this subpart.

b) In the event a vehicle is unable
complete the noise emission test,
e manufacturer may replace the ve-
cle. Any replacement vehicle must
a production vehicle of the same category, configuration or subgroup as the vehicle which it replaced, and it is subject to all the provisions of this subpart.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57721, Dec. 28, 1982]

§ 205.160-5 Reporting of the test results.

(a)(1) The manufacturer must submit a copy of the test report for all testing conducted pursuant to § 205.160 at the conclusion of each 24-hour period during which testing is done.

(2) For each test conducted the manufacturer must provide the following information:

(i) Category, configuration or configuration subgroup identification where applicable;

(ii) Year, make, assembly date, and model of vehicle;

(iii) Vehicle serial number; and

(iv) Test results by serial numbers.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) Within 5 days after completion of testing of an SEA, the manufacturer must submit to the Administrator a final report which will include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I, and were utilized to conduct testing reported under this section, except, that a test facility that has been described in a previous submission under this subpart need not again be described, but must be identified as that facility.

(2) The following information for each noise emission test conducted:

(i) The individual records for the test vehicles required by § 205.161(a)(2) for all noise emission tests including for each invalid test, the reason for invalidation.

(ii) A complete description of any modification, repair, preparation, maintenance, or testing which could affect the noise emissions of the product and which was performed on the test vehicle but not performed on all other production vehicles; and,

(iii) The test results for any replaced vehicle and the reason for its replacement.

(3) A complete description of the sound data acquisition system if other than those specified in Appendix I.

(4) The following statement and endorsement:

> This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. To the best of——(company name) knowledge, all testing for which data are reported here was conducted in strict conformance with applicable regulations under 40 CFR Part 205 *et seq.*, all the data reported here are a true and accurate representation of such testing, and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.——(authorized representative).

(5) Additional information required by the test request.

(d) Information required to be submitted to the Administrator under this section must be sent to the following address: Director, Noise and Radiation Enforcement Division, (EN-387), U.S. Environmental Protection Agency, Washington, DC 20460.

§ 205.160–6 Passing or failing under SEA.

(a) A failing vehicle is one whose measured noise level is in excess of the applicable noise emission standard in § 205.152.

(b) The number of failing vehicles in a sample determines whether the sample passes or fails (See applicable tables in Appendix II). If the number of failing vehicles is greater than or equal to the number of Column B, the sample fails. If the number of failing vehicles is less than or equal to the number in Column A, the sample passes.

(c) Pass or failure of an SEA takes place when a decision that a vehicle is a passing or failing unit is made on the last vehicle required to make a decision under paragraph (b) of this section.

(d) If the manufacturer passes the SEA, he will not be required to perform any additional testing on subsequent vehicles to satisfy the test request.

(e) The Administrator may terminate testing earlier than required in paragraph (b) of this section, based on a request by the manufacturer, accompanied by voluntarily ceasing distribution in commerce of vehicles from the category, configuration or configuration subgroup in question, manufactured at the plant which produced the products being tested. Before reinitiating distribution in commerce of that vehicle category, configuration or configuration subgroup from that plant, the manufacturer must take the action described in § 205.160-8(a)(1) and (2).

§ 205.160–7 Continued testing.

(a) If an SEA failure occurs according to paragraph (b) of § 205.160-6, the Administrator may require that any or all vehicles of that category, configuration or configuration subgroup produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require continued testing of vehicles under paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the SEA was conducted properly; whether the criteria for SEA failure have been met; and the appropriateness or scope of a continued testing order. If a hearing is requested, the hearing will begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress will affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested vehicle which demonstrates conformance with the applicable standard may be distributed into commerce.

(e) Any distribution into commerce of a vehicle which does not comply with the applicable standard is a prohibited act.

205.160-8 Prohibition of distribution in commerce; manufacturer's remedy.

(a) The Administrator will permit he manufacturer to cease testing nder § 205.160-7 after the manufac- urer has taken the following actions:

(1) Submission of a written report to he Administrator which identifies the eason for the noncompliance of the ehicles, describes the problem and/or uality control or quality assurance emedies to be taken by the manufac- urer to correct the problem.

(2) Demonstration that the specified ehicle category, configuration or con- iguration subgroup has passed a etest conducted in accordance with 205.160, and the conditions specified n the test request.

(b) The manufacturer may begin esting under paragraph (a)(2) of this ection upon submitting the report re- uired by paragraph (a)(1) of this sec- ion, and may cease continued testing pon making the demonstration re- uired by paragraph (a)(2) of this sec- ion. The Administrator may require esumption of continued testing if he etermines that the manufacturer has ot satisfied the requirements of para- raphs (a)(1) and (2) of this section.

(c) Any vehicle failing the prescribed oise emission tests conducted pursu- nt to Appendix I may not be distrib- ted in commerce until necessary ad- ustments or repairs have been made nd the vehicle passes a retest.

5 FR 86708, Dec. 31, 1980, as amended at 7 FR 57721, Dec. 28, 1982]

205.162 In-use requirements.

205.162-1 Warranty.

(a) The vehicle manufacturer who is equired to production verify under his subpart must include in the wner's manual or in other informa- ion supplied to the ultimate purchas- r the following statement:

NOISE EMISSIONS WARRANTY RESERVED]

5 FR 86708, Dec. 31, 1980, as amended at 8 FR 27040, June 13, 1983]

205.162-2 Tampering.

(a) For each configuration of vehi- les covered by this part, the manufac- urer shall develop a list of acts which, in his judgment, constitute the removal or rendering totally or partially inoperative, other than for purposes of maintenance, repair, or replacement of noise control devices or elements of design of the vehicle.

(b) The manufacturer shall include in the owner's manual the following information:

(1) The statement:

> TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED
>
> Federal law prohibits the following acts or causing thereof:
>
> (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

(2) The statement:

> Among those acts presumed to constitute tampering are the acts listed below.

Immediately following this statement, the manufacturer must include the list developed under paragraph (a) of this section.

(c) Any act included in the list prepared pursuant to paragraph (a) of this section is presumed to constitute tampering; however, in any case in which a presumed act of tampering has been committed and it can be shown that such act resulted in no increase in the noise level of the vehicle or that the vehicle still meets the noise emission standard of § 205.152, the act will not constitute tampering.

(d) The provisions of this section are not intended to preclude any State or local jurisdiction from adopting and enforcing its own prohibitions against the removal or rendering inoperative of noise control systems on vehicles subject to this part.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57721, Dec. 28, 1982]

§ 205.162-3 Instructions for maintenance, use, and repair.

(a)(1) The manufacturer must provide to the purchaser of each vehicle covered by this subpart written instructions for the proper maintenance, use, and repair of the vehicle in order to provide reasonable assurance of the elimination or minimization of noise emission degradation throughout the life of the vehicle.

(2) The purpose of the instructions is to inform purchasers and mechanics of the acts necessary to reasonably assure that degradation of noise emission level is eliminated or minimized during the life of the vehicle. Manufacturers shall prepare the instructions with this purpose in mind. The instructions shall be clear and, to the extent practicable, written in nontechnical language.

(3) The instructions must not be used to secure an unfair competitive advantage. They shall not restrict replacement equipment to original equipment or restrict service to dealer service unless such manufacturer makes public the performance specifications on such equipment.

(b) For the purpose of encouraging proper maintenance, the manufacturer must provide a record or log book which shall contain a schedule for the performance of all required noise emission control maintenance. Space must be provided in this record book so that the purchaser can note what maintenance was done, by whom, where, and when.

[45 FR 86708, Dec. 31, 1980, as amended at 47 FR 57722, Dec. 28, 1982]

§ 205.163 Recall of noncomplying motorcycles; relabeling of mislabeled motorcycles.

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to recall, repair, modify, or relabel any vehicles distributed in commerce which are not in compliance with this subpart.

(b) A recall order issued under this section shall be based upon a determination by the Administrator that vehicles of a specified category, configuration, or class which do not conform to the regulations or are improperly labeled have been distributed in commerce. This determination may be based on: (1) A technical analysis of the noise emission characteristics of the category, configuration, or class in question; or (2) any other relevant information, including test data.

(c) For the purpose of this section, noise emissions are to be measured by the appropriate test procedure prescribed in Appendix I prior to sale or any other test which has been demonstrated to correlate with the prescribed test procedure in accordance with § 205.154.

(d) Any order to recall shall be issued only after notice and an opportunity for a hearing.

(e) All cost, including labor and parts, associated with the recall and repair or modification of noncomplying vehicles and relabeling of mislabeled vehicles under this section shall be borne by the manufacturer.

(f) This section shall not limit the discretion of the Administrator to take any other actions which are authorized by the Act.

APPENDIX I TO SUBPARTS D AND E—MOTORCYCLE NOISE EMISSION TEST PROCEDURES

EDITORIAL NOTE: The text of Appendix I follows Subpart E.

Subpart E—Motorcycle Exhaust Systems

AUTHORITY: Sec. 6 of the Noise Control Act (42 U.S.C. 4905).

SOURCE: 45 FR 86718, Dec. 31, 1980, unless otherwise noted.

§ 205.164 Applicability.

(a) Except as otherwise provided in these regulations, the provisions of this subpart apply to any motorcycle replacement exhaust system or motorcycle replacement exhaust system component which:

(1) Meets the definition of the term "new product" in the Act; and

(2) Is designed and marketed for use on any motorcycle subject to the provisions of Subpart D of this part.

(b) The provisions of § 205.169 additionally apply to the motorcycle exhaust systems originally installed on vehicles subject to the requirements of Subpart D of this part.

(c) The provisions of § 205.169(d)(3) additionally apply to motorcycle replacement exhaust systems manufactured after January 1, 1983 that are designed and marketed for use on motorcycles manufactured before January 1, 1983.

(d) Except as provided for in § 205.169, the provisions of this subpart do not apply to exhaust systems which are designed and marketed solely for use on competition motorcycles as defined in § 205.151(a)(3).

(e) The provisions of the subpart do not apply to exhaust header pipes sold as separate products.

§ 205.165 Definitions.

(a) As used in this subpart, all terms not defined herein have the meaning given them in Subpart D of this part or in the Act.

(1) "Category" means a group of exhaust systems which are identical in all material aspects with respect to the parameters listed in § 205.168 of this subpart.

(2) "Exhaust header pipe" means any tube of constant diameter which conducts exhaust gas from an engine exhaust port to other exhaust system components which provide noise attenuation. Tubes with cross connections or internal baffling are not considered to be "exhaust header pipes."

(3) "Failing exhaust system" means that, when installed on any Federally regulated motorcycle for which it is designed and marketed, that motorcycle and exhaust system exceed the applicable standards.

(4) "Federally regulated motorcycle" means, for the purpose of this subpart, any motorcyle subject to the noise standards of Subpart D of this part.

(5) "Federal standards" means, for the purpose of this subpart, the standards specified in § 205.152(a)(1), (2) and (3).

(6) [Reserved]

(7) "Stock configuration" means that no modifications have been made to the orginal equipment motorcycle that would affect the noise emissions of the vehicle when measured according to the acceleration test procedure.

(8) "Test exhaust system" means an exhaust system in Selective Enforcement Audit test sample.

(b) [Reserved]

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57722, Dec. 28, 1982]

§ 205.166 Noise emission standards.

(a) *Noise emission standards.* (1) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated street motorcycle of the following and subsequent model years must be designed and built so that when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, they will not cause that motorcycle to produce noise emissions in excess of the levels indicated:

(i) Systems designed and marketed for use on street motorcycles other than those that meet the definition of § 205.151(a)(2)(ii):

Motorcycle model year	A-weighted noise level (dB)
(A) 1983	83
(B) 1986	80

(ii) Systems designed and marketed for street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

Motorcycle model year	A-weighted noise level (dB)
(A) 1983	70

(2) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated off-road motorcycle of the following and subsequent model years must be designed and built so that, at the time of sale, when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, they will not cause that motorcycle to produce noise emissions in excess of the levels indicated:

(i) Systems designed and marketed for use on off-road motorcycles with engine displacements of 170 cc and lower:

Motorcycle model year	A-weighted noise level (dB)
(A) 1983	83
(B) 1986	80

(ii) Systems designed and marketed for use on off-road motorcycles with engine displacements greater than 170 cc:

Motorcycle model year	A-weighted noise level (dB)
(A) 1983	86
(B) 1986	82

(3) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated street motorcycle shall be designed and built so that, when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, and when both the motorcycle and the exhaust system are properly maintained and used, they will not cause that motorcycle to produce noise emissions in excess of the levels specified in paragraph (a)(1) of this section, for an Acoustical Assurance Period of one year or a distance of 6000 km (3729 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(4) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated off-road motorcycle must be designed and built so that, when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, and when both the motorcycle and the exhaust system are properly maintained and used, they will not cause that motorcycle to produce noise emissions in excess of the levels specified in paragraph (a)(2) of this section, for an Acoustical Assurance Period of one year or a distance of 3000 km (1865 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(5) At the time of sale to the ultimate purchaser all products must comply with the standards set forth in paragraphs (a)(1) and (2) of this section.

(b) *Measurement procedure.* (1)(i) The standards set forth in paragraph (a) of this section refer to the noise emissions as measured in accordance with the measurement methodology specified in Appendix I-1 for all motorcycles except those street motorcycles meeting the definition of § 205.151(a)(2)(ii). Exhaust systems which alter a motorcycle's maximum rated RPM shall be tested using the unmodified motorcycle's maximum rated RPM to determine closing RPM or test RPM.

(ii) The standards set forth in paragraph (a) of this section for street motorcycles meeting the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles) refer to noise emissions measured in accordance with the measurement methodology specified in Appendix I-2.

(2) Exhaust system components sold as separate products shall be tested as part of a system made up of that part and original equipment components to complete the system.

(3) Exhaust system components sold as separate products which are incompatible with original equipment components necessary to make a complete exhaust system, or which would not meet standards as prescribed in this subpart in such configuration, may be tested with non-original equipment components provided that the provisions of § 205.169(e)(1)(ii)(B) are carried out.

§ 205.167 Consideration of alternative test procedures.

The Administrator may approve applications from manufacturers of original equipment and replacement exhaust systems for the approval of test procedures which differ from those contained in this subpart so long as the alternative procedures have been demonstrated to correlate with the prescribed procedure. To be acceptable, alternative test procedures must be such that the test results obtained will identify all those test exhaust systems which would not comply with the noise emission standards prescribed in § 205.166 when tested in accordance with the measurement methodology specified in Appendix I. After approval by the Administrator, testing conducted by manufacturers using alternative test procedures may be accepted by the Administrator for all purposes including, but not limited to, production verification testing and selective enforcement audit testing.

§ 205.168 Requirements.

[47 FR 57722, Dec. 28, 1982]

§ 205.168–1 General requirements.

(a) Each manufacturer of motorcycle exhaust systems manufactured for Federally regulated motorcycles and distributed in commerce in the United States which are subject to the noise emission standards prescribed in this subpart and not exempted in accordance with Subpart A, § 205.5:

(1) Must label each exhaust system in accordance with the requirements of § 205.169 of this subpart; and

(2) Must only manufacture exhaust systems which conform to the applicable noise emission standard established in § 205.166 of this regulation when installed on any Federally regulated motorcycle for which it has been designed and marketed.

(b) The manufacturer who is required to conduct testing to demonstrate compliance with a particular standard must satisfy all other provisions of this subpart applicable to that standard.

(c) Prior to distribution into commerce of exhaust systems of a specific category, the manufacturer of the exhaust system shall verify the category in accordance with this subpart.

(1) Not withstanding paragraph (a)(1) of this section, the manufacturer may distribute in commerce exhaust systems of that category for up to 90 days if weather or other conditions beyond the control of the manufacturer make testing of a category impossible and if the following conditions are met:

(i) The manufacturer performs the tests required under paragraph (d) or (e) of this section on such category as soon as conditions permit;

(d) The requirements for each exhaust system category consist of:

(1) Testing in accordance with § 205.171-1 of an exhaust system selected in accordance with § 205.171-2.

(2) Compliance of the test exhaust system on a motorcycle for which it is marketed with the applicable standard when tested in accordance with Appendix I; and

(e) A manufacturer is required to verify all categories of exhaust systems within his product line for each class of Federally regulated motorcycle for which it is designed and marketed. A category of a replacement exhaust system is defined by a separate combination of at least the following parameters:

(1) *Muffler/Silencer:* (i) Volume; (ii) type of absorption material; (iii) amount of absorption material; (iv) length; (v) diameter; (vi) directional flow of exhaust gas; (vii) interior construction; (viii) shell and inner construction material; (ix) number of header pipes entering muffler; and (x) specific motorcycle application.

(2) *Expansion Chamber:* (i) Volume; (ii) diameter; (iii) construction material; (iv) directional flow of exhaust gas; (v) length; and (vi) specific motorcycle application.

(3) *Spark Arrestors:* (i) Volume; (ii) construction material; (iii) directional flow of exhaust gas; (iv) length; (v) diameter, and (vi) specific motorcycle application.

(4) *Other Exhaust System Components:* (i) Volume; (ii) shape; (iii) length; (iv) diameter; (v) material; (vi) directional flow of exhaust gas; and (vii) specific motorcycle application.

(f) Exhaust system components sold as separate products shall be tested pursuant to § 205.166(b).

(g) Original equipment exhaust systems that are also sold as replacement systems for the same motorcycle configuration need not be tested under this subpart if they have been tested or represented in a test report under Subpart D of this part.

(h) A manufacturer has the following alternatives if any test exhaust system is determined not to be in compliance with applicable standards:

(i) Modify the test exhaust system and demonstrate by testing that it meets applicable standards. The manufacturer must modify all production exhaust systems of the same category in the same manner as the test exhaust system before distribution in commerce.

[47 FR 57722, Dec. 28, 1982; 48 FR 27040, June 13, 1983]

§ 205.168–11 Order to cease distribution.

(a) If a category of exhaust systems is found not to comply with this subpart because it has not been verified or labeled as required by § 205.169, the Administrator may issue an order to the manufacturer to cease distribution in commerce exhaust systems of that category. This order will not be issued if the manufacturer has made a good faith attempt to properly production verify the category and can establish such good faith.

(b) Any such order shall be issued after notice and opportunity for a hearing which will be held in accordance with title 5 U.S.C. 554.

[45 FR 86718, Dec. 31, 1980, as amended at 48 FR 27040, June 13, 1983]

§ 205.169 Labeling requirements.

(a) The manufacturer of any product (including the manufacturer of newly produced motorcycles) subject to this subpart must, at the time of manufacture, affix a permanent, legible label, or mark of the type and in the manner described below, containing the information provided below, to all such exhaust systems or exhaust system components to be distributed in commerce.

(b) The labels or marks shall be affixed in such a manner that they cannot be removed without destroying or defacing them, and must not be applied to any part which is easily detached from such product.

(c) The label or mark shall be in a readily visible position when the exhaust system or exhaust system component is installed on all motorcycles for which it is designed and marketed.

(d) All required language shall be lettered in the English language in block letters and numerals in a color that contrasts with its background.

(e) The label or mark must contain the following information:

(1) For exhaust systems subject to the noise emission standards of § 205.166:

(i) The label heading: Motorcycle Exhaust System Noise Emission Control Information;

(ii)(A) For original equipment and replacement exhaust system, the following statement:

This (manufacturer's name) exhaust system (serial number) meets EPA noise emission requirements of (noise emission standard) dBA for the following motorcycles: (list of model specific codes). Installation of this exhaust system on motorcycle models not specified may violate Federal law.

(B) For exhaust system components designed and marketed for motorcycles, and tested in accordance with § 205.168 as a constituent of a complete exhaust system comprising non-original equipment components (other than itself), as provided for in § 205.166(b)(3), the following statement:

This (manufacturer's name) (type of component) (serial number), when installed with a legal (type of component), meets EPA noise emission requirements of (noise emission standard) dBA for the following motorcycles: (list of model specific codes). Installation of this exhaust system components on motorcycle models not specified may violate Federal law.

(iii) The model specific code must be the same as used by the motorcycle manufacturer and described in § 205.158(a)(6).

(2) For exhaust systems designed solely for use on competition motorcycles (as defined by § 205.151(a)(3) and so designated and labeled by the manufacturer), the statement:

This product is designed for use on closed course competition motorcycles only and does not conform to U.S. EPA noise emission standards. Used on motorcycles subject to EPA noise regulations constitutes tampering and is a violation of Federal law unless it can be shown that such use does not cause the motorcycle to exceed applicable Federal standards.

(3) For exhaust systems designed solely for use on motorcyles manufactured before January 1, 1982, the statement:

> This product is designed for use on pre-1982 model year motorcycles only and does not conform to U.S. EPA noise emission standards. Use on motorcycles subject to EPA noise regulations constitutes tampering and is a violation of Federal law unless it can be shown that such use does not cause the motorcycle to exceed applicable Federal standards.

(4) For replacement exhaust systems manufactured in the United States solely for use outside the U.S. and not conforming to the noise emissions standards of this regulation, the statement: "For Export Only."

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57722, Dec. 28, 1982]

§ 205.170 Testing by the Administrator.

(a)(1) In order for the Administrator to determine whether such exhaust systems or a manufacturer's test facility conform to applicable regulations, the Administrator may require that exhaust systems to be tested pursuant to the Act be submitted to him, at such place and time as he reasonably designates. He may designate the quantity of exhaust systems and the duration of time he reasonably requires for the purpose of conducting tests in accordance with test procedures described in Appendix I. The manner in which the Administrator conducts such tests, the EPA test facility, and the test procedures employed will be based upon good engineering practice and meet or exceed the requirements of Appendix I.

(2) If the Administrator specifies that he will conduct such testing at the manufacturer's facility, the manufacturer shall make available instrumentation and equipment of the type required for test operators by these regulations. The Administrator may conduct such tests with his own equipment, having specifications equal to or exceeding the performance specifications of the instrumentation and equipment required in these regulations.

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on exhaust systems produced by the manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any of the exhaust systems before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator or on other relevant information, the Administrator determines that the test facility does not meet the requirements of Appendix I or the requirements for an alternative test procedure approved under § 205.154, the Administrator will give notice to the manufacturer in writing of his determination and the reasons underlying it.

(2) The manufacturer may, at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section, request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility met the requirements. Such notice will not take effect until 15 days after its receipt by the manufacturer, or, if a hearing is requested under this paragraph, until adjudication by the administrative law judge.

(3) After any notice issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from that test facility will be acceptable for purposes of this subpart.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and that such changes have resolved the reasons for disqualification.

(5) Within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section, the Administrator will notify the manufacturer of his determination and the reasons underlying it with regard to the requalification of the test facility.

(c) The Administrator will assume all reasonable costs associated with shipment of exhaust systems to the place designated pursuant to paragraph (a) of this section except with respect to:

(1) [Reserved]

(2) Testing of a reasonable number of exhaust systems (i) for purposes of selective enforcement auditing under § 205.171, or (ii) if the manufacturer has failed to establish that there is a

correlation between its test facility and the EPA test facility, or (iii) the Administrator has reason to believe, and provides the manufacturer with a statement of such reason, that the exhaust systems to be tested would fail to meet the standard prescribed in this subpart if tested at the EPA test facility, even though they would meet such standard if tested at the manufacturer's test facility;

(3) Any testing performed during a period when a notice of nonconformance of the manufacturer's test facility issued pursuant to paragraph (b) of this section is in effect;

(4) Any testing performed at a place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this subpart; and

(5) In addition to any exhaust systems included in paragraphs (c)(2), (3), or (4) of this section, testing of up to 10 percent of the manufacturer's exhaust systems for a model year if the Administrator determines testing these exhaust systems at the EPA test site is necessary to assure that a manufacturer has acted or is acting in compliance with the Act.

(Secs. 11 and 13 of the Noise Control Act (42 U.S.C. 4910, 4912); 42 U.S.C. 4905; 86 Stat. 1237 and secs. 6, 10, 11, 13, Pub. L. 92-574, 86 Stat. 1234 (42 U.S.C. 4905, 4909, 4910, 4912))

[45 FR 86718, Dec. 31, 1980; 46 FR 4918, Jan. 19, 1981, as amended at 47 FR 57722, Dec. 28, 1982; 49 FR 26738, June 29, 1984]

§ 205.171 Selective enforcement auditing (SEA) requirements.

§ 205.171-1 Test request.

(a) The Administrator will request all testing under § 205.171 by means of a test request addressed to the manufacturer.

(b) The test request will be signed by the Assistant Administrator for Enforcement or his designee. The test request will be delivered to the plant manager or other responsible official as designated by the manufacturer.

(c) The test request will specify the exhaust system category, model and model year of motorcycle selected for testing, the manufacturer's plant or storage facility from which the exhaust systems must be selected, the method of selection and the time at which the exhaust systems must be selected. The test request will also provide for situations in which the selected exhaust system is unavailable for testing. The test request may include an alternative exhaust system category designated for testing in the event that exhaust systems of the first specified category are not available for testing because the exhaust systems are not being manufactured at the specified plant or are not being manufactured during the specified time or are not being stored at the specified plant or storage facility.

(d)(1) If the manufacturer projects a yearly production of fewer than 50 exhaust systems of the specified category to be tested, then, within five (5) days of receipt of the request, the manufacturer must notify the Administrator of such low volume production. The Administrator will then provide a revised test request specifying a testing plan which imposes no greater risk of failure (5%) at the acceptable quality level (10%) than the plan in Appendix II. Upon receipt of the revised test request, the manufacturer must select and test a sample of exhaust systems from the category specified in the test request in accordance with this subpart and the conditions specified in the test request.

(2) If the manufacturer produces 50 or more of the specified category, then, upon receipt of the test request, the manufacturer must select and test a sample of exhaust systems for the category specified in the test request in accordance with this subpart and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer under a test request must be initiated within the time period specified in the test request; except that initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in that 24-hour period do not permit testing. The manufacturer must record the conditions for this period.

(2) The manufacturer must complete noise emission testing on a minimum of ten exhaust systems per day unless otherwise provided by the Administrator or unless ambient test site conditions permit only the testing of a lesser number, in which event the ambient test site weather conditions for that period must be recorded.

(3) The manufacturer is allowed 24 hours to ship exhaust systems from a sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant. The Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease distribution in commerce of exhaust systems of a specified category being manufactured at a particular facility if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator under this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease distribution order will not be issued under paragraph (f) of this section if the manufacturer's refusal is caused by conditions and circumstances outside his control which render compliance with the provisions of a test request or with any other requirements of this section impossible. Conditions and circumstances outside the control of the manufacturer include, but are not limited to, the temporary unavailability of equipment and personnel needed to conduct the required tests, caused by uncontrollable factors such as equipment breakdown or failure or illness of personnel. Failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests does not constitute uncontrollable factors. The manufacturer must bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any order to cease distribution will be issued only after notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

§ 205.171-2 Test exhaust system selection and preparation.

(a)(1) Exhaust systems comprising the sample which are required to be tested under a test request in accordance with this subpart must be selected consecutively as they are produced.

(2) Test motorcycles and test exhaust systems to be used for testing of exhaust systems must be of the subject class which has been assembled using the manufacturer's normal production processes, in stock configuration including exhaust system, as sold or offered for sale in commerce.

(3) Before the official test, the test motorcycle and test exhaust system must not be prepared, tested, modified, adjusted, or maintained in any manner unless such preparation, tests, modifications, adjustments or maintenance are part of the original equipment manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal motorcycle assembly and inspection procedures, or are required or permitted under this subpart, or are approved in advance by the Administrator.

(4) Equipment or fixtures necessary to conduct the test may be installed on the motorcycle, if such equipment or fixtures shall have no effect on the noise emissions of the motorcycle as determined by the measurement methodology.

(5) In the event of a motorcycle malfunction (i.e., failure to start, etc.) maintenance that is necessary may be performed to enable the vehicle to operate in a normal manner. This maintenance must be documented and reported in the final report prepared and submitted in accordance with this subpart.

(6) No quality control, quality assurance testing, assembly or selection procedures may be used on the test vehicle or any portion thereof, including parts and subassemblies, that will not normally be used during the production and assembly of all other motorcycles of that class which will be distributed in commerce, unless such pro-

cedures are required or permitted under this subpart or are approved in advance by the Administrator.

(b) The Acceptable Quality Level (AQL) is 10 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix II or the test request.

(c) The exhaust systems of the category selected for testing must be assembled by the manufacturer for distribution in commerce using the manufacturer's normal production process.

(d) Unless otherwise indicated in the test request, the manufacturer must initiate testing with the exhaust systems of the category specified in the test request which are next scheduled for production after receipt of the test request.

(e) The manufacturer must keep on hand all products in the test sample until the sample is accepted or rejected in accordance with § 205.171-8; except that exhaust systems actually tested and found to be in conformance with this regulation need not be kept.

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57723, Dec. 28, 1982]

§ 205.171-3 Test motorcycle sample selection.

A test motorcycle to be used for selective enforcement audit testing of exhaust systems must be a motorcycle of the subject class which has been assembled using the manufacturer's normal production process, in stock configuration including exhaust system, and sold or offered for sale in commerce.

§ 205.171-6 Testing procedures.

(a) The manufacturer of the exhaust system must conduct one valid test in accordance with the appropriate test procedure specified in Appendix I for each exhaust system selected for testing under this subpart.

(b) No maintenance may be performed on the test exhaust system except as provided by § 205.171-2. In the event an exhaust system is unable to complete the noise emission test, the manufacturer may replace the exhaust system. Any replacement exhaust system must be a production exhaust system of the same category as the exhaust system which it replaced, and it is subject to all the provisions of this subpart.

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57723, Dec. 28, 1982]

§ 205.171-7 Reporting of the test results.

(a)(1) The manufacturer must submit a copy of the test report for all testing conducted pursuant to § 205.171 at the conclusion of each 24-hour period during which testing is done.

(2) For each test conducted, the manufacturer must provide the following information:

(i) Category identification where applicable;

(ii) Year, manufacturing date, serial number and model of exhaust system;

(iii) Year, make serial number, and model of test motorcycle; and

(iv) Test results by serial numbers.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) Within 5 days after completion of an SEA, the manufacturer must submit to the Administrator a final report which will include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I and where utilized to conduct testing reported under this section, except, that a test facility that has been described in a previous submission under this subpart need not again be described, but must be identified as that facility.

(2) The following information for each noise emission test conducted:

(i) The individual records required by § 205.172 (a)(2) for all noise emission tests including for each invalid test, the reason for invalidation;

(ii) A complete description of any modification, repair, preparation, maintenance, or testing, which could affect the noise emissions of the product and which was performed on the test exhaust system but not performed on all other production exhaust systems;

(iii) The test results for any replacement exhaust system and the reason for its replacement.

(3) A complete description of the sound data acquisition system if other than that specified in Appendix I.

(4) The following statement and endorsement:

> This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. To the best of (company name) knowledge, all testing for which data is reported here was conducted in strict conformance with applicable regulations under 40 CFR Part 205 *et seq.*, all the data reported here are a true and accurate representation of such testing, and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder. (authorized representative).

(5) Additional information required by the test request.

(d) Information required to be submitted to the Administrator under this section must be sent to the following address: Director, Noise and Radiation Enforcement Division, (EN-387), U.S. Environmental Protection Agency, Washington, DC 20460.

§ 205.171–8 Passing or failing under SEA.

(a) A failing exhaust system is one which, when installed on any motorcycle which is in compliance with the requirements of Subpart D and for which it is designed and marketed, together with such motorcycle produces a measured noise level in excess of the applicable noise emission standard in § 205.166.

(b) The number of failing vehicles in a sample determines whether the sample passes or fails (See applicable tables in Appendix II). If the number of failing vehicles is greater than or equal to the number in Column B, the sample fails. If the number of failing vehicles is less than or equal to the number in Column A, the sample passes.

(c) Pass or failure of a SEA takes place when a decision that an exhaust system is a passing or failing unit is made on the last exhaust system required to make a decision under paragraph (b) of this section.

(d) If the manufacturer passes the SEA, he will not be required to perform any additional testing on subsequent exhaust systems to satisfy the test request.

(e) The Administrator may terminate testing earlier than required in paragraph (b) of this section, based on a request by the manufacturer, accompanied by voluntarily ceasing distribution in commerce of exhaust systems from the category in question, manufactured at the plant which produced the exhaust systems being tested. Before reinitiating distribution in commerce of that exhaust system category from that plant, the manufacturer must take the action described in § 205.171–10(a)(1) and (2).

§ 205.171–9 Continued testing.

(a) If an SEA failure occurs according to paragraph (b) of § 205.171–8, the Administrator may require that any or all exhaust systems of that category produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require continued testing of exhaust systems under paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the SEA was conducted properly; whether the criteria for SEA failure have been met; and the appropriateness or scope of a continued testing order. If a hearing is requested, the hearing will begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress will affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested exhaust system which demonstrates conformance with the applicable standard may be distributed into commerce.

(e) Any distribution into commerce of an exhaust system which does not comply with the applicable standard is a prohibited act.

§ 205.171-10 Prohibition on distribution in commerce; manufacturer's remedy.

(a) The Administrator will permit the manufacturer to cease testing under § 205.171-9 after the manufacturer has taken the following actions:

(1) Submission of a written report to the Administrator which identifies the reason for the noncompliance of the exhaust systems, describes the problem and describes the proposed quality control or quality assurance remedies to be taken by the manufacturer to correct the problem.

(2) Demonstration that the specified exhaust system category has passed a retest conducted in accordance with § 205.171 and the conditions specified in the test request.

(b) The manufacturer may begin testing under paragraph (a)(2) of this section upon submitting the report, required by paragraph (a)(1) of this section any may cease continued testing upon making the demonstration required by paragraph (a)(2) of this section. The Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a)(1) and (2) of this section.

(c) Any exhaust system failing the noise emission tests conducted pursuant to Appendix I may not be distributed into commerce until necessary adjustment or repairs have been made and the exhaust system passes a retest.

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57723, Dec. 28, 1982]

§ 205.172 Maintenance of records; submittal of information.

(a) Except as otherwise provided in regulation, the manufacturer of any new exhaust system subject to any of the standards or procedures prescribed in this subpart must establish, maintain and retain the following adequately organized and indexed records:

(1) General records:

(i) Identification and description by category parameters of all exhaust systems in the manufacturer's product line;

(ii) A description of any procedures other than those contained in this subpart used to perform noise emission tests on any test exhaust system;

(iii) A record of the calibration of the acoustical instrumentation as is described in Appendix I;

(iv) A record of the date of manufacture of each exhaust system subject to this subpart, keyed to the serial number.

(2) Individual records for test exhaust systems:

(i) A complete record of all noise emission tests performed for Production Verification and Selective Enforcement Audit (except tests performed by EPA directly), including all individual worksheets and other documentation or exact copies relating to each test;

(ii) A record of the information recorded as described in Appendix I; and

(iii) A record and description of all repairs, maintenance and other servicing which were performed before successful testing of the exhaust system pursuant to these regulations and which could affect the noise emission of the exhaust system, giving the date and time of the maintenance or service, the reason for it, the person authorizing it, and the names of supervisory personnel responsible for the conduct of the maintenance or service.

(3) A properly filed production verification report following the format prescribed by the Administrator in § 205.168-3 fulfills the requirements of paragraphs (a)(1)(i) and (ii) of this section.

(4) All records required to be maintained under this subpart must be retained by the manufacturer for a period of three (3) years from the production verification date. Records may be retained as hard copy or alternatively reduced to microfilm, punch cards, etc., depending on the record retention procedures of the manufacturer; however, when an alternative method is used, all information contained in the hard copy must be contained in the copy made by the alternative method.

(b) The manufacturer must, upon request, submit to the Administrator the following information with regard to new exhaust system production:

(1) Number of exhaust systems, by category, scheduled for production for

the time period designated in the request.

(2) Number of exhaust systems, by category, produced during the time period designated in the request.

(c) The reporting requirements of this regulation will no longer be effective after five (5) years from the last effective date of this regulation. However, the requirements will remain in effect if the Administrator is taking appropriate steps to repromulgate or modify the reporting requirements at hat time.

§ 205.173 In-use requirements.

§ 205.173-1 Warranty.

(a) The exhaust system manufacturer must include in the information upplied to the ultimate purchaser ursuant to § 205.173-4, the following tatement:

NOISE EMISSION WARRANTY

[The manufacturer] warrants that this xhaust system, at time of sale, meets all pplicable U.S. E.P.A. Federal noise standards. This warranty extends to the first erson who buys this exhaust system for urposes other than resale, and to all subsequent buyers. Warranty claims should be direct to ———. (Manufacturer shall fill in his blank with his name, address and telephone number.)

(b) [Reserved]

(c) All information must be sent to:

Director, Noise and Radiation Enforcement Division (EN-387), Environmental Protection Agency, Washington, DC 20460.

45 FR 86718, Dec. 31, 1980, as amended at 7 FR 57723, Dec. 28, 1982]

205.173-2 Tampering.

The manufacturer must include the ollowing statement pursuant to 205.173-4 with each product of that ategory the manufacturer distributes nto commerce:

TAMPERING PROHIBITION

Federal law prohibits any modification to his exhaust system which causes the motorcycle to exceed the Federal noise standard. Use of the motorcycle with such a modified exhaust system is also prohibited. Acts likely to constitute tampering include emoval or puncturing the muffler, baffles, eader pipes, or any other component which conducts exahust gases.

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57723, Dec. 28, 1982]

§ 205.173-3 Warning statement.

The manufacturer must include the following statement pursuant to § 205.173-4 with each product of that category the manufacturer distributes into commerce:

Warning: This product should be checked for repair or replacement if the motorcycle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

[45 FR 86718, Dec. 31, 1980, as amended at 47 FR 57723, Dec. 28, 1982]

§ 205.173-4 Information sheet.

The manufacturer must include the Noise Emissions Warranty statement, Tampering Prohibition statement and the Warning statement with each product. All three statements must be printed on a white sheet or card at least 8½"×11". Each statement must cover no more than ⅓ of the sheet or card. No other printing must be on the sheet. The statements must be printed in black ink; the statement headings must be in capital letters in a minimum size type of 12 point (pica type) or its equal; and the test of the statement must be a minimum size type of 10 point (elite type) or its equal. The sheet or card must be placed with the exhaust system inside any packaging. If there is no packaging, the sheet or card must be affixed to the exhaust system so that it will not be accidentally detached in shipping.

§ 205.174 Remedial orders.

The Administrator may issue appropriate remedial orders to a manufacturer if products are distributed into commerce not in compliance with the regulations of this subpart. Potential orders are stop sale orders, orders to cease distribution, relabel, replace or recall, or any other orders appropriate in the specific circumstances. A remedial order will be issued only after notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

APPENDIX I TO SUBPARTS D AND E—MOTORCYCLE NOISE EMISSION TEST PROCEDURES

APPENDIX I-1 TO SUBPARTS D AND E—TEST PROCEDURE FOR STREET AND OFF-ROAD MOTORCYCLES

(a) *Instrumentation.* Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer must be referred to for both recommended operation of the instrument and precautions to be observed. The following instrumentation must be used, where applicable:

(1) A sound level measurement system which meets the type S1A requirements of American National Standard Specification for Sound Level Meters, ANSI S1.4-1971. As an alternative to making direct measurements using a sound level meter, a microphone or sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating instrument provided that the system meets the performance requirements of ANSI S1.4-1971. The sound level measurement system must be calibrated at least annually to insure that the system meets the performance requirements of ANSI S1.4-1971.

(2) An acoustic calibrator with an accuracy of within ±0.5 dB. The calibrator must be checked annually to verify that its output is within the specified accuracy.

(3)(i) An engine speed measurement system having the following characteristics:

(A) Steady-state accuracy of within ±3% of actual engine speed in the range of 45% to 100% of the engine speed (RPM) where peak net brake power (maximum rated RPM) is developed; and

(B) Response characteristics such that, when closing RPM is indicated under an acceleration as described below, actual engine speed is no more than 3 percent (of closing RPM) greater than the specified closing RPM.

(ii) The vehicle tachometer may be used to ascertain:

(A) The approach RPM provided its meets the specifications in paragraph (a)(3)(i)(A).

(B) The closing RPM provided it meets the specifications in paragraphs (a)(3)(i)(A) and (B).

(iii) Indirect engine speed measurement systems, such as systems which determine engine speed from vehicle speed measurement, may be used provided the specifications of paragraph (a)(1)(i) are met.

(4) An anemometer with steady-state accuracy of within ±10% at 20 km/h (12.4 mph).

(5) A microphone wind screen which does not affect microphone response more than ±0.5 dB for frequencies of 20-4000 Hz or ±1.0 dB for frequencies of 4000-10,000 Hz, taking into account the orientation of the microphone.

(b) *Test site.* (1) The measurement area within the test site must meet the following requirements and be laid out as described:

(i) The following points must be established:

(A) Microphone target point—a reference point on the vehicle path;

(B) End point— a point on the vehicle path 7.5 ± 0.3m (24.6 ± 1.0 ft) beyond the microphone target point, and

(C) Microphone location point—a point 15± 0.3m (49.2 ± 1.0 ft) from the microphone target point on a normal to the vehicle path through the microphone target point.

(ii) The microphone must be:

(A) Positioned at the microphone location point 1.2 ± 0.1 m (3.9 ± 0.3 ft) above the ground plane; and

(B) Oriented in a plane perpendicular to the vehicle path, and at an angle for which the microphone was calibrated to have the flatest response characteristics over the frequency range of 100 Hz to 10,000 Hz when measured with respect to the motorcycle source.

(iii) The surface of the ground within at least the triangular area formed by the microphone location and the points 15 ± 0.3m (49.2 ±1.0 ft.) prior to and 15 ± 0.3 m (49.2 ± 1.0 ft.) beyond the microphone target point must be flat (+ 5 cm (2.0 in)) and level (grade not more than 0.5% along vehicle path), have a concrete or sealed asphalt surface, and be free from snow, soil or other extraneous material.

(iv) The vehicle path must be relatively smooth and of sufficient length for safe acceleration, deceleration and stopping of the motorcycle.

(2) The test site must be flat, open space free of large sound-reflecting surfaces (other than the ground), such as parked vehicles, sign-boards, buildings or hillsides located within a 30 ± 0.3 m (98.4 ± 1.0 ft) radius of the microphone location and the following points on the vehicle path (see Figure 1):

(i) The microphone location point;

(ii) A point 15 ± 0.3 m (49.2 ± 1.0 ft.) before the microphone target point; and

(iii) A point 15 ± 0.3 m (49.2 ± 1.0 ft) beyond the microphone target point.

(c) *Measurement procedure.*

(1) To establish the acceleration point, the end point must be approached in second gear from the reverse of the intended test direction at a constant engine speed of 50% of maximum rated RPM or closing RPM less ten percent of (of maximum rated

RPM), whichever is lower, (±2.5% of observed reading). When the front of the motorcycle reaches the end point (approached from the reverse direction), the throttle must be smoothly and fully opened to accelerate the motorcycle past the microphone target point under wide open throttle. When the motorcycle reaches closing RPM the throttle must be smoothly and fully closed. An ignition disable device may be used to turn off the engine at closing RPM in lieu of closing the throttle manually. The location of the front of the motorcycle at the time of throttle closure is the acceleration point for the test runs. The test runs must be made in the opposite direction. A sufficient number of trial runs must be made to assure accurate establishment of the acceleration point.

(2) Closing RPM must be determined according to the motorcycle engine displacement, as follows (see Figure 2):

Displacement (cc)	Closing RPM (Fraction of maximum rated RPM—percent)
0 to 175	95
176 to 675	109 to 0.08 × (engine displacement in cc)
676 and above	55

(3) The distance from the acceleration point to the end point must be at least 10 m 32.8 ft). If this distance is less than 10 m 32.8 ft) by the procedure specified in paragraph (c)(1), above, third gear, if the motorcycle is so equipped, must be used. If the distance is still less than 10 m (32.8 ft), ourth gear, if the motorcycle is so equipped, must be used, and so on. If closing RPM is reached before the vehicle travels 0 m (32.8 ft), with the vehicle in its highest gear, the throttle must be opened less rapid- y, but in such a manner that full throttle nd closing RPM are attained at the end point.

(4) If the motorcycle is equipped with an automatic transmission, the procedure specified in paragraph (c)(1), must be followed xcept that the lowest selectable range must e employed, and the procedure specified in aragraph (c)(3) must be followed using the next selectable higher range, if necessary, nd if the vehicle is so equipped. If closing RPM is reached before the vehicle travels 0 m (32.8 ft.), the throttle must be opened ess rapidly, but in such a manner that full hrottle and closing RPM are attained at he end point.

(5) Throttle opening must be controlled to void excessive wheel slip or lift-off.

(6) To conduct a sound measurement, the motorcycle must proceed along the vehicle ath in the forward direction in second gear or higher gear as applicable under paragraph (c)(3)) at a constant engine speed of 50% of maximum rated RPM or at closing RPM less ten percent (of maximum rated RPM), whichever is lower (± 2.5 percent of observed reading). When the front of the vehicle reaches the acceleration point, the throttle must be smoothly and fully opened. Full acceleration must continue until closing RPM is reached, which must occur within ± 1.0 m (3.3 ft.) of the end point, and at which time the throttle must be smoothly and fully closed. An ignition disable device may be used to turn off the engine at closing RPM in lieu of closing the throttle manually.

(7) A sufficient number of preliminary runs must be conducted before the testing to familiarize the rider with the test procedure and operating conditions of the vehicle. The engine temperature must be within the normal operating range prior to each run.

(d) *Measurements.* (1) The sound level meter must be set for fast response and for the A-weighting network. The microphone wind screen must be used. The sound level meter must be calibrated with the acoustic calibrator as often as is necessary throughout testing to maintain the accuracy of the measurement system.

(2) The sound level meter must be observed throughout the acceleration period. The highest sound level obtained for the run must be recorded.

(3) Measurements must be made until at least four readings from each side are within 2 dB of each other. The noise level for each side is the average of the four which are within 2 dB of each other. The noise level reported must be for that side of the motorcycle having the highest noise level.

(4) While making sound level measurements, not more than one person other than the rider and the observer reading the meter may be within 15 m (49.2 ft) of the vehicle or microphone, and that person must be directly behind the observer reading the meter, on a line through the microphone and the observer.

(5) The ambient noise level (including wind effects) at the test site due to sources other than the motorcycle being measured must be at least 10 dB lower than the noise level at the microphone location produced by the motorcycle under test.

(6) Wind speed at the test site during tests must be less than 20 km/h (12.4 mph).

(e) *Required data.* For each valid test, the following data must be recorded:

(1) Motorcycle type, serial number, model year, and date of manufacture.

(2) Names of persons conducting test.

(3) Test location.

(4) Wind speed and ambient noise level measured on the same day as the test and representative of conditions during the test.

(5) Motorcycle engine displacment, maximum rated RPM, and closing RPM.

(6) The gear used for testing if other than second gear; or type of transmission and description of testing if motorcycle is equipped with automatic transmission.

(7) Description of the sound level meter including type, serial number, and calibration date.

(8) Description of the external acoustic calibrator including type, serial number, and calibration date.

(9) Description of the tachometer or engine speed measurement system used for conducting the test.

(10) Maximum noise level for each pass on each side of the motorcycle including invalid readings and reasons for invalidation.

(11) Reported noise level.

(12) Other information as appropriate to completely describe testing conditions and procedure.

APPENDIX I-2 TO SUBPARTS D AND E—TEST PROCEDURE FOR STREET MOTORCYCLES THAT MEET THE DEFINITION OF § 205.151(A)(2)(II) (MOPED-TYPE STREET MOTORCYCLES)

(a) *Instrumentation.* Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer must be referred to for both recommended operation of the instrument and precautions to be observed. The following instrumentation must be used, where applicable:

(1) A sound level measurement system which meets the type SIA requirements of American National Standard Specification for Sound Level Meters, ANSI S1.4-1971. As an alternative to making direct measurements using a sound level meter, a microphone or sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating instrument provided that the system meets the performance requirements of ANSI S1.4-1971. The sound level measurement system must be calibrated at least annually to insure that the system meets the performance requirements of ANSI S1.4-1971.

(2) An acoustic calibrator with an accuracy of within ±0.5 dB. The calibrator must be checked annually to verify that its output is within the specified accuracy.

(3) An anemometer with steady-state accuracy of within ±10% at 20 km/h (12.4 mph).

(4) A microphone wind screen which does not affect microphone response more than ±0.5 dB for frequencies of 20-4000 Hz or ±1.0 dB for frequencies of 4000-10,000 Hz, taking into account the orientation of the microphone.

(b) *Test site.* (1) The measurement area within the test site must meet the following requirements and be laid out as described:

(i) The following points must be established:

(A) Microphone target point—a reference point on the vehicle path;

(B) End point—a point on the vehicle path 7.5±0.3 m (24.6±1.0 ft) beyond the microphone target point; and

(C) Microphone location point—a point 15±0.3 m (49.2±1.0 ft) from the microphone target point on a normal to the vehicle path through the microphone target point. Alternately, the microphone location point may be a point 7.5±0.3 m (24.6±1.0 ft) from the microphone target point provided that the sound level reported is adjusted as provided in this appendix under paragraph (d)(3).

(ii) The microphone must be:

(A) Positioned at the microphone location point 1.2±0.1 m (3.9±0.3 ft) above the ground plane; and

(B) Oriented in a plane perpendicular to the vehicle path, and at an angle for which the microphone was calibrated to have the flattest response characteristics over the frequency range of 100 Hz to 10,000 Hz when measured with respect to the motorcycle source.

(iii) The surface of the ground within at least the triangular area formed by the microphone location and the points 15±0.3 m (49.2±1 ft) prior to and 15±0.3 m beyond the microphone target point must be flat (±5 cm (2.0 in)) and level (grade not more than 0.5% along vehicle path), have a concrete or sealed asphalt surface, and be free from snow, soil or other extraneous material.

(iv) The vehicle path must be relatively smooth and of sufficient length for safe acceleration, deceleration and stopping of the motorcycle.

(2) The test site must be a flat, open space free of large sound-reflecting surfaces (other than the ground), such as parked vehicles, signboards, buildings or hillsides located within a 30±0.3 m (98.4±1.0 ft) radius of the microphone location and the following points on the vehicle path (see Figure 1):

(i) The microphone location point;

(ii) A point 15±0.3 m (49.2±1 ft) before the microphone target point; and

(iii) A point 15±0.3 m (49.2±1 ft) beyond the microphone target point.

(c) *Measurement procedure.* (1) The combined weight of the test rider and test equipment used on the motorcycle must not be more than 80 kg (176 lb) nor less than 75 kg (165 lb). Weights shall be placed on the motorcycle saddle behind the rider to compensate for any difference between the actual driver/equipment load and the required 75 kg (165 lb) minimum.

(2) The motorcycle must approach the microphone target point with the throttle fully open and in the highest gear. The motorcycle must start such that maximum speed is reached before the vehicle is within 7.5 m of the microphone target point. The motorcycle must continue along the vehicle path with fully open throttle and at maximum speed past the end point, at which time the throttle must be closed.

(3) If the motorcycle is equipped with an automatic transmission, the procedure of paragraph (1), above, must be followed except that the highest selectable range shall be employed.

(d) *Measurements.* (1) The sound level meter must be set for fast response and for the A-weighting network. The microphone wind screen must be used. The sound level meter must be calibrated with the acoustic calibrator as often as is necessary throughout testing to maintain the accuracy of the measurement system.

(2) The sound level meter must be observed throughout the passby period. The highest noise level obtained for the run must be recorded.

(3) At least three measurements shall be made for each side of the motorcycle. Measurements must be made until at least three readings from each side are within 2 dB of each other. The noise level for each side must be the average of the three. The noise level reported must be for that side of the motorcycle having the highest noise level. If the microphone location point is 7.5 m from the vehicle path as allowed in this appendix under paragraph (b)(1)(i)(c), the noise level must be adjusted by subtracting 6 dB prior to being reported.

(4) While making noise level measurements, not more than one person other than the rider and the observer reading the meter may be within 15 m (49.2 ft) of the vehicle or microphone, and that person must be directly behind the observer reading the meter, on a line through the microphone and the observer.

(5) The ambient sound level (including wind effects) at the test site due to sources other than the motorcycle being measured must be no greater than 60 dB if the microphone is located 15 m from the vehicle path or 66 dB if the microphone is located 7.5 m from the vehicle path as allowed in this appendix under paragraph (b)(1)(i)(c).

(6) Wind speed at the test site during tests must be less than 20 km/h (12.4 mph).

(e) *Required data.* For each valid test, the following data must be recorded:

(1) Motorcycle type, serial number, model year, and date of manufacture.

(2) Names of persons conducting test.

(3) Test location.

(4) Wind speed and ambient noise level measured on the same day as the test and representative of conditions during the test.

(5) Description of the sound level meter including type, serial number, and calibration date.

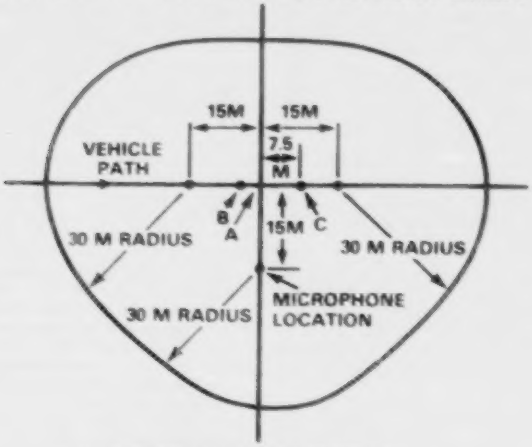
(6) Description of the external acoustic calibrator including type, serial number, and calibration date.

(7) Maximum noise level for each pass on each side of the motorcycle including invalid readings and reasons for invalidation.

(8) Reported noise level.

(9) Other information as appropriate to completely describe testing conditions and procedure.

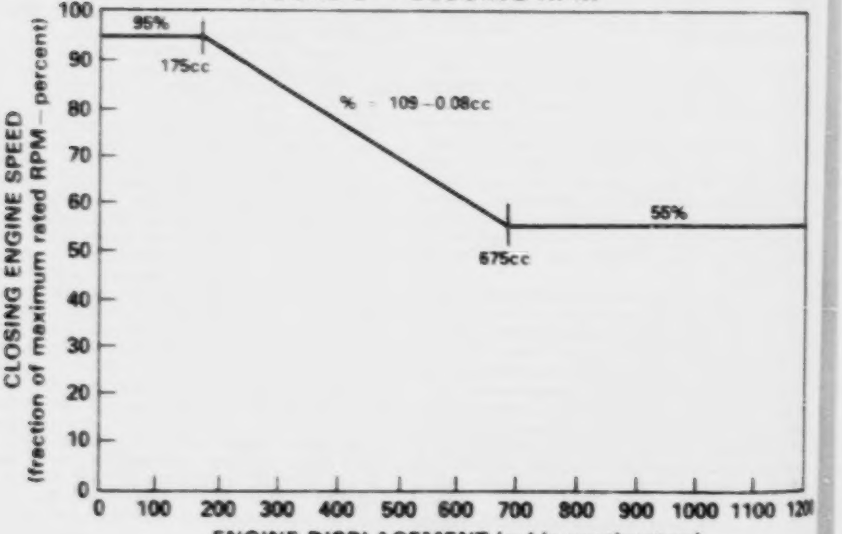
FIGURE 1 — TEST MEASUREMENT AREA


15M
15M
7.5 M
VEHICLE PATH
B
A
15M
C
30 M RADIUS
30 M RADIUS
30 M RADIUS
MICROPHONE LOCATION

A – MICROPHONE TARGET POINT
B – ACCELERATION POINT (VARIABLE)
C – END POINT

TEST MEASUREMENT AREA

FIGURE 2 — CLOSING RPM



APPENDIX II TO SUBPART E—SAMPLING TABLES

TABLE 1—MODEL YEAR PRODUCTION VOLUME OF 50-99 VEHICLES

Cumulative number of tests	Number of failing vehicles	
	Column A	Column B
1		
2		
3		3
4		3
5		3
6		3
7	0	3
8	0	4
9	0	4
10	0	4
11	1	4
12	1	4
13	1	5
14	1	5
15	2	5
16	2	5
17	2	5
18	2	5
19	2	5
20	4	5

TABLE 2—MODEL YEAR PRODUCTION VOLUME OF 100-199 VEHICLES

Cumulative number of tests	Number of failing vehicles	
	Column A	Column B
		3
		3
		3
		3
	0	4
	0	4
	0	4
	0	4
	1	4
	1	5
	1	5
	1	5
	1	5
	2	5
	2	5
	2	5
	2	5
	4	5

TABLE 3—MODEL YEAR PRODUCTION VOLUME OF 200-399 VEHICLES

Cumulative number of tests	Number of failing vehicles	
	Column A	Column B

TABLE 3—MODEL YEAR PRODUCTION VOLUME OF 200-399 VEHICLES—Continued

Cumulative number of tests	Number of failing vehicles	
	Column A	Column B
3		3
4		3
5		3
6		3
7	0	4
8	0	4
9	0	4
10	0	4
11	0	5
12	1	5
13	1	5
14	1	5
15	1	5
16	2	5
17	2	5
18	2	5
19	2	5
20	4	5

TABLE 4—MODEL YEAR PRODUCTION VOLUME OF 400 OR MORE VEHICLES

Cumulative number of tests	Number of failing vehicles	
	Column A	Column B
1		
2		
3		3
4		3
5		3
6		4
7	0	4
8	0	4
9	0	4
10	0	4
11	0	5
12	1	5
13	1	5
14	1	5
15	1	5
16	2	5
17	2	5
18	2	5
19	2	5
20	4	5

PART 209—RULES OF PRACTICE GOVERNING PROCEEDINGS UNDER THE NOISE CONTROL ACT OF 1972

Subpart A—Rules of Practice Governing Hearings for Orders Issued Under Section 11(d) of the Noise Control Act

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AUTHORITY: Sec. 11, Noise Control Act of 1972 (42 U.S.C. 4910) and additional authority as specified.

SOURCE: 43 FR 34132, Aug. 3, 1978, unless otherwise noted.

Subpart A—Rules of Practice Governing Hearings for Orders Issued Under Section 11(d) of the Noise Control Act

§ 209.1 Scope.

These rules of practice govern all proceedings conducted in the issuance of an order under section 11(d) of the Noise Control Act of 1972, 42 U.S.C. 4910.

§ 209.2 Use of number and gender.

In these rules of practice, words in the singular number apply to the plural and words in the masculine gender apply to the feminine and vice versa.

§ 209.3 Definitions.

All terms not defined in this section shall have the meaning given them in the Act.

(a) "Act" means the Noise Control Act of 1972 (42 U.S.C. 4901, et seq.).

(b) "Administrative law judge" means an administrative law judge appointed under 5 U.S.C. 3105 (see also 5 CFR Part 930, as amended by 37 FR 16787). "Administrative law judge" is synonymous with "hearing examiner" as used in Title 5 of the United States Code.

(c) "Administrator" means the Administrator of the Environmental Protection Agency or his or her delegate.

(d) "Agency" means the U.S. Environmental Protection Agency.

(e) "Complainant" means the Agency acting through any person authorized by the Administrator to issue a complaint to alleged violators of the Act. The complainant shall not be the judicial officer or the Administrator.

(f) "Hearing clerk" means the hearing clerk of the Environmental Protection Agency.

(g) "Intervener" means a person who files a motion to be made a party under § 209.15 or § 209.16, and whose motion is approved.

(h) "Party" means the Environmental Protection Agency, the respondent(s) and any interveners.

(i) "Person" means any individual, corporation, partnership, or association, and includes any officer, employee, department, agency or instrumentality of the United States, a State, or any political subdivision of a State.

(j) "Respondent" means any person against whom a complaint has been issued under this subpart.

(k) "Judicial officer" means an officer or employee of the Agency appointed as a judicial officer by the Administrator under this section who shall meet the qualifications and perform functions as follows:

(1) *Position.* There may be designated for the purposes of this section one or more judicial officers. As work requires, there may be a judicial officer designated to act for a particular case.

(2) *Qualifications.* A judicial officer shall be a permanent or temporary employee of the Agency, and may perform other duties for the Agency. The judicial officer shall not be employed by the Office of Enforcement or have any connection with the preparation or presentation of evidence for a hearing held under this subpart in which he or she participates as judicial officer.

(3) *Functions.* The Administrator may consult with a judicial officer or delegate all or part of his or her authority to act under these rules of practice to a judicial officer in a given case. The judicial officer may refer any motion or case to the Administrator, even after this delegation.

§ 209.4 Issuance of complaint.

If the complainant has reason to believe that a person has violated any provision of the Act or the regulations, he or she may institute a proceeding for the issuance of a remedial order by issuing a complaint.

§ 209.5 Complaint.

(a) *Contents.* The complaint shall include (1) specific reference to each provision of the Act or regulations which respondent is alleged to have violated; (2) a brief statement of the factual basis for alleging each violaion; (3) the proposed order issued under section 11(d) of the Act to emedy the violation, signed by the Assistant Administrator for Enforcement, with notice that the order shall e effective 20 days after service of he complaint unless respondent requests a hearing under § 209.6; (4) otice of respondent's right to request a hearing on any material fact or issue f law contained in the complaint, or n the appropriateness of the proposed order; and (5) a statement of whether the respondent must submit a emedial plan pursuant to § 209.8.

(b) *Amendment of the complaint.* At ny time prior to the filing of an nswer, the complainant may amend he complaint as a matter of right. Repondent shall have twenty (20) addiional days from the date of service of he amended complaint to file an nswer. At any time after the filing of n answer, the complaint may be amended upon motion granted by the administrative law judge.

(c) *Withdrawal of the complaint.* Where, on the basis of new information or evidence, the complainant concludes that no violation of the Act or the regulations has been committed by the respondent or that the issuance of the complaint was otherwise inappropriate, the complainant may withdraw the complaint without prejudice at any stage in the proceeding.

(d) *Service of complaint.* (1) Service of the complaint shall be made on the respondent personally (or on his or her representative), or by certified mail, return receipt requested.

(2) Service upon a domestic or foreign corporation or upon a partnership or another unincorporated association which is subject to suit under a common name shall be made by personal service or certified mail, return receipt requested, directed to an officer or partner, a managing or general agent, or any other agent authorized by appointment or by Federal or State law to receive service of process.

(3) Proof of service of the complaint shall be made by affidavit of the person making personal service, or by properly executed return receipt.

§ 209.6 Answer.

(a) *General.* Where respondent (1) contests any material fact alleged in the complaint to constitute a violation of the Act or regulations; or (2) contends that the remedial order proposed in the complaint is inappropriate to the violation; or (3) contends that he or she is entitled to judgment as a matter of law, he or she shall file a written answer with the complainant. Any answer must be filed with the complainant within twenty (20) days after service of the complaint. Initiation of informal conferences with the Agency under § 209.19 does not add to the twenty (20) day period. The time period in which to file an answer may be extended by the Administrator upon motion.

(b) *Contents of the answer.* The answer shall clearly and directly admit, deny or explain each of the factual allegations contained in the complaint with regard to which respondent has any knowledge. Whenever an allegation is denied, the answer shall state briefly the facts upon which the denial is based. The answer shall also state (1) whether a hearing is requested, (2) the facts respondent intends to place at issue, and (3) the circumstances or arguments which are alleged to constitute the grounds of defense.

(c) *Hearing upon the issues.* A hearing upon the issues raised by the complaint and answer shall be held upon written demand of respondent.

(d) *Failure to plead specifically.* A respondent's failure to plead specifically to any material factual allegation contained in the complaint shall constitute an admission of such allegation.

(e) *Amendment of the answer.* The respondent may amend the answer upon motion granted by the administrative law judge.

§ 209.7 Effective date of order in complaint.

(a) The order in the complaint is effective and binding on respondent 20 days after service of the complaint, unless respondent requests a hearing pursuant to § 209.6. If the respondent does not request a hearing, the order is then a final order of the Agency.

(b) Respondent may file a motion with the complainant to vacate the final order, reopen the proceedings and request a hearing after the order is effective. This motion must be filed within twenty (20) days after the effective date of the order. The motion shall state the reasons respondent failed to file a timely answer, and provide the information required by § 209.6(b). The Administrator may, in his or her discretion and for good cause shown, grant the motion.

§ 209.8 Submission of a remedial plan.

(a) The Administrator may require the respondent to submit a remedial plan. Notice of this requirement and the due date will be given in the complaint. If the respondent requests a hearing, the remedial plan required by the complaint need not be submitted. The final order may include a requirement that the respondent submit a remedial plan.

(b) A respondent may always submit a remedial plan voluntarily in pursuit of informal settlement.

(Sec. 13, Noise Control Act (42 U.S.C. 4912))

§ 209.9 Contents of a remedial plan.

(a) The Administrator will specify the requirements of the remedial plan. This may include, but is not limited to, the following information:

(1) A detailed description of the products covered by the remedial order, including the category and/or configuration if applicable, and the make, model year and model number, if applicable.

(2) A detailed description of the present location of the products, including a list of those in possession of the products and, if necessary, how the respondent intends to contact the persons in possession and retrieve the products.

(3) Any appropriate remedies the respondent would propose as an alternative to the specific remedies proposed by the Administrator.

(4) A detailed plan for implementing the remedies, both those proposed by the Administrator and those proposed by the respondent.

(5) A detailed account of the costs of implementing each of the proposed plans.

(b) Remedial plans shall be submitted to Director, Noise Enforcement Division (EN-387), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

(Sec. 13, Noise Control Act (42 U.S.C. 4912))

§ 209.10 Approval of plan, implementation.

(a) If the Administrator finds that the remedial plan is designed to remedy the noncompliance effectively, he or she will so notify the respondent in writing. If the remedial plan is not approved, the Administrator will provide the respondent with written notice of the disapproval and the reasons for the disapproval. The Administrator may give the respondent an opportunity to revise the plan, or the Administrator may revise the plan.

(b) The respondent shall commence implementation of the approved plan upon receipt of notice from the Administrator that the remedial plan has been approved, or revised by the Administrator and then approved.

(Sec. 13, Noise Control Act (42 U.S.C. 4912))

§ 209.11 Filing and service.

(a) After an answer containing a written demand for a hearing has been filed, an original and two copies of all documents or papers required or permitted to be filed under these rules of practice shall be filed with the hearing clerk.

(b) When a party files with the hearing clerk any pleadings, any additional issues for consideration at the hearing, or any written testimony, documents, papers, exhibits, or materials, proposed to be introduced into evidence or papers filed in connection with any appeal, it shall serve copies upon all other parties. A certificate of service shall be provided on or accompany each document or paper filed with the hearing clerk. Documents to be served upon the Director of the Noise Enforcement Division shall be mailed to: Director, Noise Enforcement Division, U.S. Environmental Protection Agency (EN-387), 401 M Street SW., Washington, DC 20460.

(c) Service by mail is complete upon mailing. Filing is completed when the document reaches the hearing clerk. It shall be timely if mailed within the time allowed for filing as determined by the postmark.

§ 209.12 Time.

(a) In computing any period of time prescribed or allowed by these rules of practice, the day of the act or event from which the designated period of time begins to run shall not be included, except as otherwise provided. Saturdays, Sundays, and Federal legal holidays shall be included in computing any period allowed for the filing of any document or paper, except that when a period expires on a Saturday, Sunday, or Federal legal holiday, the period shall be extended to include the next following business day.

(b) A prescribed period of time within which a party is required or permitted to do an act shall be computed from the time of service, except that when service is accomplished by mail, 3 days shall be added.

§ 209.13 Consolidation.

The Administrator or the administrative law judge may consolidate two or more proceedings to be held under this section for resolving one or more issues whenever it appears that such consolidation will expedite or simplify consideration of such issues. Consolidation shall not affect the right of any party to raise any issues that could otherwise have been raised.

§ 209.14 Motions.

(a) All motions, except those made orally during the course of the hearing, shall be in writing, shall state the grounds with particularity, and shall set forth the relief or order sought.

(b) Within 10 days after service of any motion filed under this section or within such other time as may be fixed by the Administrator or the administrative law judge, as appropriate, any party may serve and file an answer to the motion. The movant shall, by leave of the Administrator or the administrative law judge, as appropriate, serve and file reply papers within the time set by the request.

(c) The administrative law judge shall rule upon all motions filed or made subsequent to his or her appointment and prior to the filing of his or her decision or accelerated decision, as appropriate. The Administrator shall rule upon all motions filed before the appointment of the administrative law judge and all motions filed after the filing of the decision of the administrative law judge or accelerated decision. Oral argument of motions will be permitted only if the administrative law judge or the Administrator, as appropriate, deems it necessary.

§ 209.15 Intervention.

(a) Persons desiring to intervene in a hearing to be held under section 11(d) of the act shall file a motion setting forth the facts and reasons why they should be permitted to intervene.

(b) In passing on a motion to intervene, the following factors, among other things, shall be considered by the administrative law judge:

(1) The nature of the movant's interest including the nature and the extent of the property, financial, environmental protection, or other interest of the movant;

(2) The effect the order which may be entered in the proceeding may have on the movant's interest;

(3) The extent to which the movant's interest will be represented by existing parties or may be protected by other means;

(4) The extent to which the movant's participation may reasonably be expected to assist materially in the development of a complete record;

(5) The extent to which one movant's participation may reasonably be expected to delay the proceedings.

(c) A motion to intervene should be filed before the first prehearing conference, the initiation of correspondence under § 209.20, or the setting of the time and place for the hearing, whichever occurs earliest. Motions shall be served on all parties. Any opposition to such motion must be filed within 10 days of service.

(d) All motions to be made an intervener shall be reviewed by the administrative law judge using the criteria set forth in paragraph (b) of this section and considering any opposition to such motion. The administrative law judge may, in granting such motion, limit a movant's participation to certain issues only.

(e) If the administrative law judge grants the motion with respect to any or all issues, he or she shall notify, or direct the hearing clerk to notify, the petitioner and all parties. If the administrative law judge denies the motion he or she shall notify, or direct the hearing clerk to notify, the petitioner and all parties and shall briefly state the reasons why the motion was denied.

(f) All motions to be made an intervener shall include the movant's agreement that the movant and any person he or she represents will be subject to examination and cross-examination, and will also include an agreement to make any supporting and relevant records available at the movant's own expense upon the request of the administrative law judge, on his or her own motion or the motion of any party or other intervener. If the intervener fails to comply with any of these requests, the administrative law judge may, in his or her discretion, terminate his or her status as an intervener.

§ 209.16 Late intervention.

Following the expiration of the time prescribed in § 209.15 for the submission of motions to intervene in a hearing, any person may file a motion with the administrative law judge to intervene in a hearing. Such a motion must contain the information and commitments required by paragraph (b) and (f) of § 209.15, and, in addition, must show that there is good cause for granting the motion and must contain a statement that the movant shall be bound by agreements, arrangements, and other determinations which may have been made in the proceeding.

§ 209.17 Amicus curiae.

Persons not parties to the proceedings who wish to file briefs may do so by leave of the Administrator or the administrative law judge, as appropriate, granted on motion. This motion shall identify the interest of the applicant and shall state the reasons why the proposed amicus brief is desirable. An amicus curiae shall be eligible to participate in any briefing following the granting of his or her motion, and shall be served with all briefs, reply briefs, motions and orders relating to issues to be briefed.

§ 209.18 Administrative law judge.

(a) *General.* The administrative law judge shall conduct a fair and impartial hearing in accordance with 5 U.S.C. 554, and shall take all necessary action to avoid delay and maintain order. He or she shall have all power consistent with Agency rule and with the Administrative Procedure Act, 5 U.S.C. 551, et seq., necessary to this end, including the following:

(1) To administer oaths and affirmations;

(2) To rule upon offers of proof and receive relevant evidence;

(3) To regulate the course of the hearings and the conduct of the parties and their counsel;

(4) To hold conferences for simplification of the issues or any other proper purpose;

(5) To consider and rule upon all appropriate procedural and other motions, and to issue all necessary orders;

(6) To require the submission of testimony in written form whenever in the opinion of the administrative law judge oral testimony is not necessary for full and true disclosure of the facts.

(7) To require the filing of briefs on any matter on which he or she is required to rule;

(8) To require any party or any witness, during the course of the hearing, to state his or her position on any relevant issue;

(9) To take depositions or cause depositions to be taken in accordance with § 209.22.

(10) To render judgments upon issues of law during the course of the hearing.

(11) To issue subpenas authorized by law.

(b) *Assignment of administrative law judge.* When an answer which contains a written demand for a hearing is filed, the administrator shall refer the proceeding to the chief administrative law judge, who shall conduct the proceeding, or assign another administrative law judge to conduct the proceeding.

(Sec. 16, Noise Control Act (42 U.S.C. 4915))

§ 209.19 Informal settlement and consent agreement.

(a) *Settlement policy.* The Agency encourages settlement of the proceeding at any time after the issuance of a complaint if settlement is consistent with the provisions and the objectives of the act and the regulations. Whether or not respondent requests a hearing, he or she may confer with complainant concerning the facts stated in the complaint or concerning the appropriateness of the proposed remedial order. The terms of any settlement agreement shall be expressed in a written consent agreement. Conferences with complainant concerning possible settlement shall not affect the 20 day time limit for filing an answer under § 209.6.

(b) *Consent agreement.* A written consent agreement signed by the complainant and respondent shall be prepared by the complainant and forwarded to the Administrator whenever settlement or compromise is proposed. A copy shall be served on all other parties to the proceeding, no later than the date the consent agreement is forwarded to the Administrator. The consent agreement shall state that, for the purpose of this proceeding, respondent (1) admits the jurisdictional allegations of the complaint; (2) admits the facts as stipulated in the consent agreement or neither admits nor denies specific factual allegations contained in the complaint; and (3) consents to the issuance of a given remedial order. The consent agreement shall include (i) the terms of the agreement; (ii) any appropriate conclusions regarding material issues of law, fact and/or discretion as well as reasons therefor; and (iii) the Administrator's proposed final order. The administrative law judge does not have jurisdiction over a consent agreement.

(c) *Final order.* No settlement or consent agreement shall be dispositive of any action pending under section 11(d) of the act without a final order of the Administrator. In preparing a final order, the Administrator may require that any or all of the parties to the settlement or other parties appear before him or her to answer inquiries relating to the proposed consent agreement. The hearing is terminated without further proceedings upon the filing of the final order with the hearing clerk.

§ 209.20 Conferences.

(a) At the discretion of the administrative law judge, conferences may be held prior to or during any hearing. The administrative law judge shall direct the hearing clerk to notify all parties of the time and location of any such conferences. At the discretion of the administrative law judge, persons other than parties may attend. At a conference the administrative law judge may:

(1) Obtain stipulations and admissions, receive requests and order depositions to be taken, identify disputed issues of fact and law, and require or allow the submission of written testimony from any witness or party.

(2) Set a hearing schedule for as many of the following as are deemed necessary by the administrative law judge:

(i) Oral and written statements;

(ii) Submission of written testimony as required or authorized by the administrative law judge;

(iii) Oral direct and cross-examination of a witness;

(iv) Oral argument, if appropriate;

(3) Identify matters of which official notice may be taken;

(4) Consider limitation of the number of expert and other witnesses;

(5) Consider the procedure to be followed at the hearing; and

(6) Consider any other matter that may expedite the hearing or aid in the disposition of the issue.

(b) The results of any conference including all stipulations shall, if not transcribed, be summarized in writing by the administrative law judge and made part of the record.

(c) The administrative law judge, on motion or sua sponte, may request correspondence from the parties for any of the objectives set forth in this section. Copies of the administrative law judge's request and the parties' correspondence shall be served upon all parties. The administrative law judge shall include such correspondence in the record and a written summary of any stipulation or agreement reached by means of such correspondence as provided in paragraph (b) of this section.

§ 209.21 Primary discovery (exchange of witness lists and documents).

(a) At a prehearing conference or within some reasonable time set by the administrative law judge prior to the hearing, each party shall make available to the other parties the names of the expert and other witnesses the party expects to call, together with a brief summary of their expected testimony and copies of all documents and exhibits which the party expects to introduce into evidence. Thereafter, witnesses, documents, or exhibits may be added and summaries of expected testimony amended upon motion by a party.

(b) The administrative law judge, may, upon motion by a party or other person, and for good cause shown, by order (1) restrict or defer disclosure by a party of the name of a witness or a narrative summary of the expected testimony of a witness, and (2) prescribe other appropriate measures to protect a witness. Any party affected by any such action shall have an adequate opportunity, once he or she learns the name of a witness and obtains the narrative summary of the witness' expected testimony, to prepare for the presentation of his or her case.

§ 209.22 Other discovery.

(a) Further discovery under this section shall be undertaken only upon order of the administrative law judge or upon agreement of the parties, except as provided in § 209.21. The administrative law judge shall order further discovery only after determining:

(1) That such discovery will not delay the proceeding unreasonably;

(2) That the information to be obtained is not obtainable voluntarily; and

(3) That such information is relevant to the subject matter of the hearing.

(b) The administrative law judge shall order depositions upon oral questions only upon a showing of good cause and a finding that:

(1) The information sought cannot be obtained by alternative methods; or

(2) There is a substantial reason to believe that relevant and probative evidence may otherwise not be preserved for presentation by a witness at the hearing.

(c) Any party to the proceeding may make a motion or motions for an order of discovery. The motion shall set forth:

(1) The circumstances which require the discovery;

(2) The nature of the information expected to be discovered; and

(3) The proposed time and place where it will be taken. If the adminis-

rative law judge determines the
notion should be granted, he or she
hall issue an order for the taking of
uch discovery together with the con-
litions and terms thereof.
(d) A person's or party's failure to
omply with a discovery order may
ead to the inference that the informa-
ion to be discovered is adverse to the
erson or party who failed to provide
.

209.23 Trade secrets and privileged information.

In the presentation, admission, dis-
osition, and use of evidence, the ad-
inistrative law judge shall preserve
he confidentiality of trade secrets and
ther privileged commercial and finan-
ial information. The confidential or
rade secret status of any information
hall not, however, preclude its being
ntroduced into evidence. The adminis-
rative law judge may make such
rders as may be necessary to consider
uch evidence in camera. This may in-
lude a supplemental initial decision
consider questions of fact and con-
lusions regarding material issues of
w, fact or discretion which arise out
f that portion of the evidence which
confidential or which includes trade
ecrets.

209.24 Default order.

(a) *Default.* Respondent may be
ound to be in default upon failure to
omply with a prehearing or hearing
uling of the Administrator or the ad-
inistrative law judge. A respondent's
efault shall constitute an admission
f all facts alleged in the complaint
nd a waiver of respondent's right to a
earing on such factual allegations.
he remedial order proposed is bind-
g on respondent without further
roceedings upon the issuance by the
dministrator of a final order issued
pon default.
(b) *Proposed default order.* Where
e administrative law judge finds a
efault has occurred after a request
r a hearing has been filed, the ad-
inistrative law judge may render a
roposed default order to be issued
gainst the defaulting party. For the
urpose of appeal pursuant to § 209.31
is order shall be deemed to be the initial decision of the administrative law judge.

(c) *Contents of a final order issued upon default.* A final order issued upon default shall include findings of fact, conclusions regarding all material issues of law, fact, or discretion, and the remedial order which is issued. An order issued by the Administrator upon the default of respondent shall constitute a final order in accordance with the terms of § 209.33.

§ 209.25 Accelerated decision; dismissal.

(a) The administrative law judge, upon motion of any party or sua sponte, may at any time render an accelerated decision in favor of the Agency or the respondent as to all or any part of the proceeding, without further hearing or upon such limited additional evidence such as affidavits as he or she may require, or dismiss any party with prejudice, under any of the following conditions:

(1) Failure to state a claim upon which relief can be granted, or direct or collateral estoppel;

(2) No genuine issue of material fact exists and a party is entitled to judgment as a matter of law, as to all or any part of a proceeding; or

(3) Such other reasons as are just, including failure to obey a procedural order of the administrative law judge.

(b) If under this section an accelerated decision is issued as to all the issues and claims joined in the proceedings, the decision shall be treated as the decision of the administrative law judge as provided in § 209.30.

(c) If under this section, judgment is rendered on less than all issues or claims in the proceeding, the administrative law judge shall determine what material facts exist without substantial controversy and what material facts are actually and in good faith controverted. The administrative law judge shall thereupon issue an order specifying the facts which appear without substantial controversy, and the issues and claims upon which the hearing will proceed.

§ 209.26 Evidence.

(a) The official transcripts and exhibits, together with all papers and requests filed in the proceeding, shall constitute the record. Evidence may be received at the hearing even though inadmissible under the rules of evidence applicable to judicial proceedings, provided it is relevant, competent and material and not unduly repetitious. Immaterial or irrelevant parts of an admissible document shall be segregated and excluded so far as practicable. The weight to be given evidence shall be determined by its reliability and probative value.

(b) Witnesses shall be examined orally, under oath or affirmation, except as otherwise provided in these rules of practice or by the administrative law judge. Parties shall have the right to cross-examine a witness who appears at the hearing provided that such cross-examination is not unduly repetitious.

(c) Rulings of the administrative law judge on the admissibility of evidence, the propriety of examination and cross-examination and other procedural matters shall appear in the record.

(d) Parties shall automatically be presumed to have taken exception to an adverse ruling.

§ 209.27 Interlocutory appeal.

(a) An interlocutory appeal may be taken to the Administrator either (1) with the consent of the administrative law judge where he or she certifies on the record or in writing that the allowance of an interlocutory appeal is clearly necessary to prevent exceptional delay, expense or prejudice to any party or substantial detriment to the public interest, or (2) absent the consent of the administrative law judge, by permission of the Administrator.

(b) Applications for interlocutory appeal of any ruling or order of the administrative law judge may be filed with the administrative law judge within 5 days of the issuance of the ruling or order being appealed. Answers by other parties may be filed within 5 days of the service of such applications.

(c) Applications to file such appeals absent consent of the administrative law judge shall be filed with the Administrator within 5 days of the denial of any appeal by the administrative law judge.

(d) The Administrator will consider the merits of the appeal on the application and answers. No oral argument will be heard nor other briefs filed unless the Administrator directs otherwise.

(e) Except under extraordinary circumstances as determined by the administrative law judge, the taking of an interlocutory appeal will not stay the hearing.

§ 209.28 Record.

(a) Hearings shall be reported and transcribed verbatim, stenographically or otherwise, and the original transcript shall be part of the record and the sole official transcript. Copies of the record shall be filed with the hearing clerk and made available during Agency business hours for public inspection. Any person who desires a copy of the record of the hearing or any part of it shall be entitled to it upon payment of the cost.

(b) The official transcripts and exhibits, together with all papers and requests filed in the proceeding, shall constitute the record.

§ 209.29 Proposed findings, conclusions.

(a) Within 20 days of the filing of the record with the hearing clerk as provided in § 209.28, or within such longer time as may be fixed by the administrative law judge, any party may submit for the consideration of the administrative law judge proposed findings of fact, conclusions of law, and a proposed rule or order, together with briefs in support of it. Such proposals shall be in writing, shall be served upon all parties, and shall contain adequate references to the record and authorities relied on.

(b) The record shall show the administrative law judge's ruling on the proposed findings and conclusions except when the administrative law judge's order disposing of the proceedings otherwise informs the parties of the action taken by him or her thereon.

§ 209.30 Decision of the administrative law judge.

(a) The administrative law judge shall issue and file with the hearing clerk his or her decision as soon as racticable after the period for filing roposed findings as provided for in 209.29 has expired.

(b) The administrative law judge's ecision shall become the decision of he Administrator (1) when no notice f intention to appeal as described in 209.31 is filed, 30 days after its issunce, unless in the interim the Adminstrator shall have taken action to eview or stay the effective date of the ecision; or (2), when a notice of intenion to appeal is filed but the appeal is ot perfected as required by § 209.31, 5 ays after the period allowed for perection of an appeal has expired unless ithin that 5 day period, the Adminisrator has taken action to review or tay the effective date of the decision.

(c) The administrative law judge's ecision shall include a statement of indings and conclusions, as well as the easons or basis therefore, upon all he material issues of fact or law preented on the record and an approprite rule or order. The decision shall be upported by a preponderance of the vidence and based upon a considertion of the whole record.

(d) At any time prior to issuing his r her decision, the administrative law udge may reopen the proceeding for he reception of further evidence.

209.31 Appeal from the decision of the administrative law judge.

(a) Any party to a proceeding may ppeal the administrative law judge's ecision to the Administrator: Providd, That within 10 days after the adinistrative law judge's decision is sued, the party files a notice of inention to appeal, and within 30 days f the decision the party files an ppeal brief.

(b) When an appeal is taken from he decision of the administrative law udge, any party may file a brief with espect to such appeal. The brief shall e filed within 20 days of the date of he filing of the appellant's brief.

(c) Any brief filed under this section hall contain, in the order indicated:

(1) A subject index of the matter in he brief, with page references, and a able of cases (alphabetically aranged), textbooks, statutes, and other aterial cited, with page references hereto;

(2) A specification of the issues which will be argued;

(3) The argument presenting clearly the points of fact and law relied upon in support of the position taken on each issue, with specific page references to the record and the legal or other material relied upon; and

(4) A proposed form of rule or order for the Administrator's consideration if different from the rule or order contained in the administrative law judge's decision.

(d) Briefs shall not exceed 40 pages without leave of the Administrator.

(e) The Administrator may allow oral argument in his or her discretion.

§ 209.32 Review of the administrative law judge's decision in absence of appeal.

(a) If, after the expiration of the period for taking an appeal under § 209.31, no notice of intention to appeal the decision of the administrative law judge has been filed, or if filed, not perfected, the hearing clerk shall so notify the Administrator.

(b) The Administrator, upon receipt of notice from the hearing clerk that no notice of intention to appeal has been filed, or if filed, not perfected pursuant to § 209.31, may, on his or her own motion, within the time limits specified in § 209.30(b), review the decision of the administrative law judge. Notice of the Administrator's intention to review the decision of the administrative law judge shall be given to all parties and shall set forth the scope of such review and the issues which shall be considered and shall make provision for filing of briefs.

§ 209.33 Decision on appeal or review.

(a) Upon appeal from or review of the administrative law judge's decision, the Administrator shall consider such parts of the record as are cited or as may be necessary to resolve the issues presented and, in addition shall to the extent necessary or desirable exercise all the powers which the Administrator could have exercised if he or she had presided at the hearing.

(b) The Administrator shall render a decision as expeditiously as possible. The Administrator shall adopt, modify or set aside the findings, conclusions, and rule or order contained in the decision of the administrative law judge and shall set forth in his or her decision a statement of the reasons or bases for his action. The Administrator's decision shall be the final order in the proceeding.

(c) In those cases where the Administrator believes that he or she should have further information or additional views of the parties as to the form and content of the rule or order to be issued, the Administrator, in his or her discretion, may withhold final action pending the receipt of such additional information or views, or may remand the case to the administrative law judge.

§ 209.34 Reconsideration.

Within five (5) days after service of the Administrator's decision, any party may file with the Administrator a petition for reconsideration of such decision, setting forth the relief desired and the grounds in support thereof. Any petition filed under this subsection must be confined to new questions raised by the decision or final order and upon which the petitioner had no opportunity to argue before the administrative law judge or the Administrator. Any party desiring to oppose a petition shall file an answer thereto within five (5) days after service of the petition. The filing of a petition for reconsideration shall not operate to stay the effective date of the decision or order.

§ 209.35 Conclusion of hearing.

(a) If no appeal has been taken from the administrative law judge's decision before the period for taking an appeal under § 209.31 has expired, and, the period for review by the Administrator on his or her own motion under § 209.30 has expired, and the Administrator does not move to review such decision, the hearing will be deemed to have ended at the expiration of all periods allowed for such appeal and review.

(b) If an appeal of administrative law judge's decision in taken under § 209.31, or if, in the absence of such appeal, the Administrator moves to review the decision of the administrative law judge under § 209.32, the hearing will be deemed to have ended upon the rendering of a final decision by the Administrator.

§ 209.36 Judicial review.

(a) The Administrator hereby designates the general counsel, Environmental Protection Agency as the officer upon whom copy of any petition for judicial review shall be served. That officer shall be responsible for filing in the court the record on which the order of the Administrator is based.

(b) Before forwarding the record to the court, the Agency shall advise the petitioner of the costs of preparing it and as soon as payment to cover fees is made shall forward the record to the court.

PART 210—PRIOR NOTICE OF CITIZEN SUITS

Sec.
210.1 Purpose.
210.2 Service of notice.
210.3 Contents of notice.

AUTHORITY: Sec. 12, Noise Control Act, (Pub. L. 92-574, 86 Stat. 1234).

SOURCE: 39 FR 36011, Oct. 7, 1974, unless otherwise noted.

§ 210.1 Purpose.

Section 12 of the Noise Control Act authorizes any person to commence a civil action on his own behalf to enforce the Act or to enforce certain requirements promulgated pursuant to the Act. The purpose of this part is to prescribe procedures governing the manner of giving notices as required by subsection 12(b) of the Act (Pub. L. 92-574, 86 Stat. 1234) as a prerequisite to the commencement of such actions.

§ 210.2 Service of notice.

(a) Notice of intent to file suit pursuant to section 12(a)(1) of the Act shall be served upon an alleged violator of a noise control requirement issued under the Act in the following manner:

(1) If the alleged violator is a private individual or a corporation, service of notice shall be accomplished by registered mail, return receipt requested,

addressed to, or by personal service upon, the owner or managing agent of the equipment, plant, facility, vehicle, or activity alleged to be in violation. A copy of the notice shall be mailed to the Administrator of the Environmental Protection Agency, the Regional Administrator of the Environmental Protection Agency for the region in which such violation is alleged to have occurred; and in the case of a violation of a noise control requirement under section 611 of the Federal Aviation Act, to the Administrator of the Federal Aviation Administration, and the Regional Administrator of the Federal Aviation Administration for the region in which such violation is alleged to have occurred. If the alleged violator is a corporation, a copy of such notice also shall be mailed to the registered agent, if any, of such corporation in the State in which such violation is alleged to have occurred.

(2) If the alleged violator is a State or local government entity, service of notice shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the head of such agency. A copy of such notice shall be mailed to the Administrator of the Environmental Protection Agency, the Regional Administrator of the Environmental Protection Agency for the region in which such violation is alleged to have occurred; and in the case of a violation of a noise control requirement under section 611 of the Federal Aviation Act, to the Administrator of the Federal Aviation Administration, and the Regional Administrator of the Federal Aviation Administration for the region in which such violation is alleged to have occurred.

(3) If the alleged violator is a Federal agency, service of notice shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the head of such agency. A copy of such notice shall be mailed to the Administrator of the Environmental Protection Agency, the Regional Administrator of the Environmental Protection Agency for the region in which such violation is alleged to have occurred, the Attorney General of the United States; and in the case of a violation of a noise control requirement under section 611 of the Federal Aviation Act, to the Administrator of the Federal Aviation Administration, and the Regional Administrator of the Federal Aviation Administration for the region in which such violation is alleged to have occurred.

(b) Service of notice of intent to file suit pursuant to section 12(a)(2)(A) of the Act shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the Administrator, Environmental Protection Agency, Washington, DC 20460. A copy of such notice shall be mailed to the Attorney General of the United States.

(c) Service of notice of intent to file suit pursuant to section 12(a)(2)(B) of the Act shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the Administrator, Federal Aviation Administration, Washington, D.C. A copy of such notice shall be mailed to the Attorney General of the United States, and to the Administrator of the Environmental Protection Agency.

(d) Notice given in accordance with the provisions of this part shall be deemed to have been served on the date of receipt. If service was accomplished by mail, the date of receipt will be deemed to be the date noted on the return receipt card.

§ 210.3 Contents of notice.

(a) *Violation of noise control requirement.* Notice regarding an alleged violation of a noise control requirement shall include sufficient information to permit the recipient to identify the specific standard or regulation alleged to have been violated, the activity alleged to constitute a violation, the person or persons responsible for the alleged violation, the location of the alleged violation, the date or dates of such violation and the full name, address, and telephone number of the person giving notice.

(b) *Failure to act.* Notice regarding an alleged failure of the Administrator of the Environmental Protection Agency to perform any act or duty under the Noise Control Act which is not discretionary with such Administrator or notice regarding an alleged failure of the Administrator of the Federal Aviation Administration to perform any act or duty under section 611 of the Federal Aviation Act which is not discretionary with such Administrator shall identify the statutory provision which requires such act or creates such duty, shall describe with reasonable specificity the action taken or not taken by such Administrator which is alleged to constitute a failure to perform such act or duty, and shall state the full name, address, and telephone number of the person giving the notice.

(c) *Identification of Counsel.* The notice shall state the name, address, and telephone number of the legal counsel, if any, representing the person giving the notice.

PART 211—PRODUCT NOISE LABELING

Subpart A—General Provisions

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211.214 Removal of label.

APPENDIX A—COMPLIANCE AUDIT TESTING REPORT

SOURCE: 44 FR 56127, Sept. 28, 1979, unless otherwise noted.

Subpart A—General Provisions

AUTHORITY: Sec. 8, Noise Control Act of 1972, (42 U.S.C. 4907), and other authority as specified.

§ 211.101 Applicability.

The provisions of Subpart A apply to all products for which regulations are published under Part 211 and manufactured after the effective date of this regulation, unless they are made inapplicable by product-specific regulations.

§ 211.102 Definitions.

(a) All terms that are not defined in this subpart will have the meaning given them in the Act.

(b) "Act" means the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234).

(c) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(d) "Agency" means the United States Environmental Protection Agency.

(e) "Acoustic descriptor" means the numeric, symbolic, or narrative information describing a product's acoustic properties as they are determined according to the test methodology that the Agency prescribes.

(f) "Export exemption" means an exemption from the prohibitions of section 10(a)(3) and (4) of the Act; this type of exemption is granted by statute under section 10(b)(2) of the Act for the purpose of exporting regulated products.

(g) "National security exemption" means an exemption from the prohibitions of section 10(a)(3) and (5) of the Act, which may be granted under section 10(b)(1) of the Act in cases involving national security.

(h) "Product" means any noise-producing or noise-reducing product for which regulations have been promulgated under Part 211; the term includes "test product".

(i) "Regulations published under this part" means all subparts to Part 211.

(j) "Testing exemption" means an exemption from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for research, investigations, studies, demonstrations, or training, but not for national security.

(k) "Test product" means any product that must be tested according to regulations published under Part 211.

§ 211.103 Number and gender.

In this part, words in the singular will be understood to include the plural, and words in the masculine gender will be understood to include the feminine, and vice versa, as the case may require.

§ 211.104 Label content.

The following data and information must be on the label of all products for which regulations have been published under this part:

(a) The term "Noise Rating" if the product produces noise, or the term "Noise Reduction Rating" if the product reduces noise;

(b) The acoustic rating descriptor that is determined according to procedures specified in the regulations that will be published under this part;

(c) Comparative acoustic rating information, which EPA will specify in the regulations published under this part;

(d) A product manufacturer identification consisting of: (1) The Company name, and (2) The City and State of the principal office;

(e) A product model number or type identification;

(f) The phrase "Federal law prohibits removal of this label prior to purchase";

(g) The U.S. Environmental Protection Agency logo, as shown in Figure 1;

(h) The phrase "Label Required by U.S. EPA regulation 40 CFR Part 211, Subpart ———."

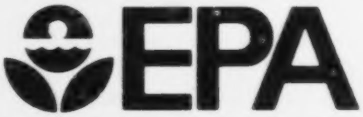

FIGURE 1

§ 211.105 Label format.

(a) Unless specified otherwise in other regulations published under this part, the format of the label must be as shown in Figure 2. The label must include all data and information required under § 211.104.

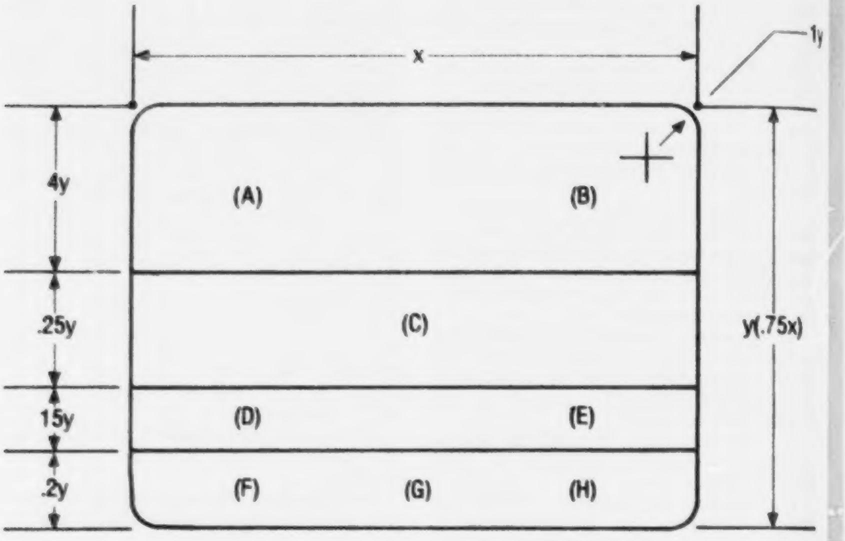

FIGURE - 2

(b) Unless EPA specifies otherwise in regulations published under this part, the required data and information specified in § 211.104(a) through (h) must be located in the following areas of the prescribed label (see Figure 2 of this section):

(1) Section 211.104 (a)—Area A.
(2) Section 211.104 (b)—Area B.
(3) Section 211.104 (c)—Area C.
(4) Section 211.104 (d)—Area D.
(5) Section 211.104 (e)—Area E.
(6) Section 211.104 (f)—Area F.
(7) Section 211.104 (g)—Area G.
(8) Section 211.104 (h)—Area H.

§ 211.106 Graphical requirements.

(a) *Color.* Unless EPA requires otherwise, the product manufacturer or supplier must determine the colors used for the label background, borders, and all included letters, numerals, and figures. However, the colors on the label must contrast sufficiently with each other and with any information or material surrounding the label so that the label and the information within it are clearly visible and legible.

(b) *Label Size.* The prescribed label must be sized as specified in regulations published under this part.

(c) *Character Style.* Except when specified otherwise in this part, all letters and numerals that appear on the prescribed label must be Helvetica Medium.

(d) *Character Size.* All letters and numerals that appear on the prescribed label must be sized as specified in regulations published under this part.

§ 211.107 Label type and location.

The prescribed label must be of the type and in the location specified in regulations published under this part.

§ 211.108 Sample label.

Examples of labels conforming to the requirements of §§ 211.104, 211.105, and 211.106 are presented in Figure 3.

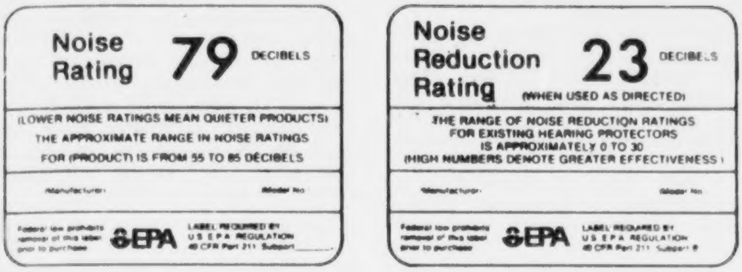
Noise Rating
79
DECIBELS
(LOWER NOISE RATINGS MEAN QUIETER PRODUCTS)
THE APPROXIMATE RANGE IN NOISE RATINGS
FOR (PRODUCT) IS FROM 55 TO 85 DECIBELS
Manufacturer
Model No
Federal law prohibits removal of this label prior to purchase
EPA
LABEL REQUIRED BY U S E P A REGULATION 40 CFR Part 211 Subpart ____
Noise Reduction Rating
23
DECIBELS
(WHEN USED AS DIRECTED)
THE RANGE OF NOISE REDUCTION RATINGS
FOR EXISTING HEARING PROTECTORS
IS APPROXIMATELY 0 TO 30
(HIGH NUMBERS DENOTE GREATER EFFECTIVENESS)
Manufacturer
Model No
Federal law prohibits removal of this label prior to purchase
EPA
LABEL REQUIRED BY U S E P A REGULATION 40 CFR Part 211 Subpart B

Figure - 3

§ 211.109 Inspection and monitoring.

(a) Any inspecting or monitoring activities that EPA conducts under this part with respect to the requirements set out in regulations published under this part, will be for the purpose of determining:

(1) Whether test products are being selected and prepared for testing in accordance with the provisions of the regulations;

(2) Whether test product testing is being conducted according to the provisions of those regulations; and

(3) Whether products that are being produced and distributed into commerce comply with the provisions of those regulations.

(b) The Director of the Noise Enforcement Division may request that a manufacturer who is subject to this part admit an EPA Enforcement Officer during operating hours to any of the following:

(1) Any facility or site where any product to be distributed into commerce is manufactured, assembled, or stored;

(2) Any facility or site where the manufacturer performed or performs any tests conducted under this part or any procedures or activities connected with those tests;

(3) Any facility or site where any test product is located.

(c)(1) Once an EPA Enforcement Officer has been admitted to a facility or site, that officer will not be authorized to do more than the following:

(i) Inspect and monitor the manufacture and assembly, selection, storage, preconditioning, noise testing, and maintenance of test products, and to verify the correlation or calibration of test equipment;

(ii) Inspect products before they are distributed in commerce;

(iii) Inspect and make copies of any records, reports, documents, or information that the manufacturer must maintain or provide to the Administrator under the Act or under any provision of this part;

(iv) Inspect and photograph any part or aspect of any product and any components used in manufacturing the product that is reasonably related to the purpose of this entry; and

(v) Obtain from those in charge of the facility or site any reasonable assistance that he may request to enable him to carry out any function listed in this section.

(2) The provisions of this section apply whether the facility or site is owned or controlled by the manufacturer, or by someone who acts for the manufacturer.

(d) For the purposes of this section:

(1) An "EPA Enforcement Officer" is an employee of the EPA Office of Enforcement. When he arrives at a facility or site, he must display the credentials that identify him as an em-

ployee of the EPA and a letter signed by the Director of the Noise Enforcement Division designating him to make the inspection.

(2) Where test product storage areas or facilities are concerned, "operating hours" means all times during which personnel, other than custodial personnel, are at work in the vicinity of the area or facility and have access to it.

(3) Where other facilities or areas are concerned, "operating hours" means all times during which products are being manufactured or assembled; or all times during which products are being tested or maintained; or records are being compiled; or when any other procedure or activity related to labeling, selective enforcement auditing, or product manufacture or assembly being carried out.

(4) "Reasonable assistance" means providing timely and unobstructed access to test products or to products and records that are required by this part, and the means for copying those records or the opportunity to test the test products.

(e) The manufacturer must admit an EPA Enforcement Officer who presents a warrant authorizing entry to a facility or site. If the EPA officer does not have the warrant, he may enter a facility or site only if the manufacturer consents.

(1) It is not a violation of this regulation or the Act if anyone refuses to allow an officer without a warrant to enter the site.

(2) The Administrator or his designee may proceed *ex parte* (without the other party's knowledge) to obtain a warrant whether or not the manufacturer has refused entry to an EPA Enforcement Officer.

(Secs. 11 and 13, Pub. L. 92-574, 86 Stat. 1242, 1244 (42 U.S.C. 4910, 4912))

[44 FR 56127, Sept. 28, 1979, as amended at 47 FR 57716, Dec. 28, 1982]

§ 211.110 Exemptions.

§ 211.110-1 Testing exemption.

(a) A new product intended to be used solely for research, investigations, studies, demonstrations or training, and so labeled or marked on the outside of the container and on the produce itself, shall be exempt from the prohibitions of sections 10(a), (1), (2), (3), and (5) of the Act.

(b) No request for a testing exemption is required.

(c) For purposes of section 11(d) of the Act, any testing exemption shall be void ab initio with respect to each new product, originally intended for research, investigations, studies, demonstrations, or training, but distributed in commerce for other uses.

[47 FR 57716, Dec. 28, 1982]

§ 211.110-2 National security exemptions.

(a) A new product which is produced to conform with specifications developed by national security agency, and so labeled or marked on the outside of the container and on the product itself, shall be exempt from the prohibitions of sections 10(a), (1), (2), (3), and (5) of the Act.

(b) No request for a national security exemption is required.

(c) For purposes of section 11(d) of the Act, any national security exemption shall be void ab initio with respect to each new product, originally intended for a national security agency, but distributed in commerce for other uses.

[47 FR 57716, Dec. 28, 1982]

§ 211.110-3 Export exemptions.

(a) A new product intended solely for export, and which has satisfied the requirements of other applicable regulations of this part, will be exempt from the prohibitions of section 10(a)(3) and (4) of the Act.

(b) Requests for an export exemption are not required.

(c) For purposes of section 11(d) of the Noise Control Act, the Administrator may consider any export exemption under section 10(b)(2) void from the beginning if a new product, intended only for export, is distributed in commerce in the United States.

(Sec. 10(b)(2), Pub. L. 92-574, 86 Stat. 1242 (42 U.S.C. 4909(b)(2)))

[44 FR 56127, Sept. 28, 1979, as amended at 47 FR 57716, Dec. 28, 1982]

211.111 **Testing by the Administrator.**

(a)(1) To determine whether prodcts conform to applicable regulations nder this part, the Administrator ay require that any product that is be tested under applicable regulaons in this part, or any other prodcts that are regulated under this art, be submitted to him, at a place nd time that he designates, to conuct tests on them in accordance with e test procedures described in the egulations.

(2) The Administrator may specify at he will conduct the testing at the cility where the manufacturer conucted required testing. The Adminisrator will conduct the tests with his wn equipment.

(b)(1) If, from the tests conducted y the Administrator, or other releant information, the Administrator etermines that the test facility used y the manufacturer(s) does not meet e requirements of this part for conucting the test required by this part, e will notify the manufacturer(s) in riting of his determination and the easons for it.

(2) After the Administrator has notiied the manufacturer, EPA will not ccept any data from the subject test acility for the purposes of this part, nd the Administrator may issue an rder to the manufacturer(s) to cease o distribute in commerce products hat come from the product categories n question. However, any such order hall be issued only after an opportuity for a hearing. Notification of this pportunity may be included in a notiication under paragraph (b)(1) of this ection. A manufacturer may request hat the Administrator grant a hearng. He must make this request no ater than fifteen (15) days (or any ther period the Administrator allows) fter the Administrator has notified he manufacturer that he intends to ssue an order to cease to distribute.

(3) A manufacturer may request in riting that the Administrator reconider his determination in paragraph b)(1) of this section, if he can provide ata or information which indicates hat changes have been made to the est facility, and that those changes ave remedied the reason for disqualiication.

(4) The Administrator will notify a manufacturer of his decision concerning requalifying the test facility within 10 days of the time the manufacturer requested reconsideration under paragraph (b)(3) of this section.

(c)(1) The Administrator will assume all reasonable costs associated with shipment of products to the place designated pursuant to paragraph (a) of this section, except with respect to:

(i) [Reserved]

(ii) Testing of a reasonable number of products for purposes of compliance audit testing under the Section titled Compliance Audit Testing of the product-specific Subpart, or if the manufacturer has failed to establish that there is a correlation between his test facility and the EPA test facility or the Administrator has reason to believe, and provides the manufacturer with a statement or reasons, that the products to be tested would fail to meet their verification level if tested at the EPA test facility, but would meet the level if tested at the manufacturer's test facility;

(iii) Any testing performed during a period when a notice issued under paragraph (b) of this section, is in effect; and

(iv) Any testing performed at place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this part.

(Secs. 11 and 13, Pub. L. 92-574, 86 Stat. 1243 (42 U.S.C. 4910, 4912))

[44 FR 56127, Sept. 28, 1979, as amended at 47 FR 57716, Dec. 28, 1982]

Subpart B—Hearing Protective Devices

AUTHORITY: Sec. 8, Pub. L. 92-574, 86 Stat. 1241 (42 U.S.C. 4907), and additional authority as specified.

SOURCE: 44 FR 56139, Sept. 28, 1979, unless otherwise noted.

§ 211.201 **Applicability.**

Unless this regulation states otherwise, the provisions of this subpart apply to all hearing protective devices manufactured after the effective date of this regulation. (See § 211.203(m) for definition of "hearing protective device.")

§ 211.202 Effective date.

Manufacturers of hearing protectors must comply with the requirements set forth in this part for all hearing protective devices manufactured on or after September 27, 1980.

§ 211.203 Definitions.

(a) As used in Subpart B, all terms not defined here have the meaning given them in the Act or in Subpart A of Part 211.

(b) *ANSI Z24.22-1957.* A measurement procedure published by the American National Standards Institute (ANSI) for obtaining hearing protector attenuation values at nine of the one-third octave band center frequencies by using pure tone stimuli presented to ten different test subjects under anechoic conditions.

(c) *ANSI S3.19-1974.* A revision of the ANSI Z24.22-1957 measurement procedure using one-third octave band stimuli presented under diffuse (reverberant) acoustic field conditions.

(d) *Carrying Case.* The container used to store reusable hearing protectors.

(e) *Category.* A group of hearing protectors which are identical in all aspects to the parameters listed in § 211.210-2(c).

(f) *Claim.* An assertion made by a manufacturer regarding the effectiveness of his product.

(g) *Custom-molded device.* A hearing protective device that is made to conform to a specific ear canal. This is usually accomplished by using a moldable compound to obtain an impression of the ear and ear canal. The compound is subsequently permanently hardened to retain this shape.

(h) *Dispenser.* The permanent (intended to be refilled) or disposable (discarded when empty) container designed to hold more than one complete set of hearing protector(s) for the express purpose of display to promote sale or display to promote use or both.

(i) *Disposable Device.* A hearing protective device that is intended to be discarded after one period of use.

(j) *Ear Insert Device.* A hearing protective device that is designed to be inserted into the ear canal, and to be held in place principally by virtue of its fit inside the ear canal.

(k) *Ear Muff Device.* A hearing protective device that consists of two acoustic enclosures which fit over the ears and which are held in place by a spring-like headband to which the enclosures are attached.

(l) *Headband.* The component of hearing protective device which applies force to, and holds in place on the head, the component which is intended to acoustically seal the ear canal.

(m) *Hearing Protective Device.* Any device or material, capable of being worn on the head or in the ear canal, that is sold wholly or in part on the basis of its ability to reduce the level of sound entering the ear. This includes devices of which hearing protection may not be the primary function, but which are nonetheless sold partially as providing hearing protection to the user. This term is used interchangeably with the terms, "hearing protector" and "device."

(n) *Impulsive Noise.* An acoustic event characterized by very short rise time and duration.

(o) *Label.* That item, as described in this regulation, which is inscribed on, affixed to or appended to a product, its packaging, or both for the purpose of giving noise reduction effectiveness information appropriate to the product.

(p) *Manufacturer.* As stated in the Act "means any person engaged in the manufacturing or assembling of new products, or the importing of new products for resale, or who acts for, and is controlled by, any such person in connection with the distribution of such products."

(q) *Noise Reduction Rating (NRR).* A single number noise reduction factor in decibels, determined by an empirically derived technique which takes into account performance variation of protectors in noise reducing effectiveness due to differing noise spectra, fit variability and the mean attenuation of test stimuli at the one-third octave band test frequencies.

(r) *Octave Band Attenuation.* The amount of sound reduction determined according to the measurement procedure of § 211.206 for one-third octave bands of noise.

(s) *Over-the-Head Position.* The mode of use of a device with a headband, in which the headband is worn such that it passes over the user's head. This is contrast to the behind-the-head and under-the-chin positions.

(t) *Package.* The container in which a hearing protective device is presented for purchase or use. The package in some cases may be the same as the carrying case.

(u) *Primary Panel.* The surface that is considered to be the front surface or that surface which is intended for initial viewing at the point of ultimate sale or the point of distribution for use.

(v) *Spectral uncertainty.* Possible variation in exposure to the noise spectra in the workplace. (To avoid the underprotection that would result from these variations relative to the assumed "Pink Noise" used to determine the NRR, an extra three decibel reduction is included when computing the NRR.)

(w) *Tag.* Stiff paper, metal or other hard material that is tied or otherwise affixed to the packaging of a protector.

(x) *Test Facility.* For this subpart, a laboratory that has been set up and calibrated to conduct ANSI Std S3.19-1974 tests on hearing protective devices. It must meet the applicable requirements of these regulations.

(y) *Test Hearing Protector.* A hearing protector that has been selected for testing to verify the value to be put on the label, or which has been designated for testing to determine compliance of the protector with the labeled value.

(z) *Test Request.* A request submitted to the manufacturer by the Administrator that will specify the hearing protector category, and test sample size to be tested according to § 211.212-1, and other information regarding the audit.

(aa) *Random Incident Field.* A sound field in which the angle of arrival of sound at a given point in space is random in time.

(bb) *Real-Ear Protection at Threshold.* The mean value in decibels of the occluded threshold of audibility (hearing protector in place) minus the open threshold of audibility (ears open and uncovered) for all listeners on all trials under otherwise identical test conditions.

(cc) *Reverberation Time.* The time that would be required for the mean-square sound pressure level, originally in a steady state, to fall 60 dB after the source is stopped.

§ 211.204 Hearing protector labeling requirements.

All provisions of Subpart A apply to this subpart except as otherwise noted.

§ 211.204-1 Information content of primary label.

The information to appear on the primary label must be according to § 211.104 of Subpart A except as stated here and shown in Figure 1 of § 211.204-2:

(a) Area A must state "Noise Reduction Rating."

(b)(1) Area B must state the value of the Noise Reduction Rating (NRR) in decibels for that model hearing protector. The value stated on the label must be no greater than the NRR value determined by using the computation method of § 211.207 of this subpart.

(2) For devices with headbands that are intended for use with the headband in different positions, the worst case NRR must be specified. The top of Area B must state the position(s) associated with that NRR. The other positions and the respective NRRs must be included with the supporting information specified in § 211.204-4.

(c) Area C must contain the statement "The range of Noise Reduction Ratings for existing hearing protectors is approximately 0 to 30 (higher numbers denote greater effectiveness)."

(d) At the bottom of Area A-B, there must be the phrase "(When used as directed)."

[44 FR 56127, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980]

§ 211.204-2 Primary label size, print and color.

The primary label characteristics are the same as those specified in §§ 211.105 and 211.106 of Subpart A except as stated here.

(a) The label must be no smaller than 3.8 centimeters by 5.0 centimeters (cm) (approximately 1.5 inches by 2.0 inches).

(b) The minimum type face size for each area shall be as follows, based upon a scale of 72 points = 1 inch:

(1) Area A—2.8 millimeters (mm) or 8 point.

(2) Area B—7.6 mm or 22 point for the Rating; —1.7 mm or 5 point for "Decibels".

(3) Area A-B—1.5 mm or 4 point.

(4) Area C—1.5 mm or 4 point.

(5) Area D—0.7 mm or 2 point.

(6) Area E—0.7 mm or 2 point.

(7) Area F—0.7 mm or 2 point.

(8) Area H—0.7 mm or 2 point.

These type face sizes apply to the 3.8 cm x 5.0 cm label; type face sizes for larger labels must be in the same approximate proportion to the label as those specified for the 3.8 cm x 5.0 cm label.

(c) The use of upper and lower case letters and the general appearance of the label must be similar to the example in Figure (1).

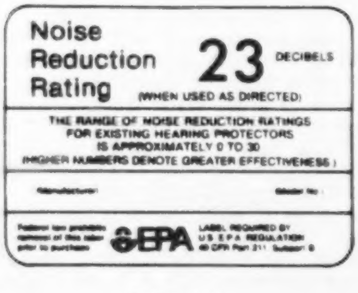
Noise
Reduction
Rating
23
DECIBELS
(WHEN USED AS DIRECTED)
THE RANGE OF NOISE REDUCTION RATINGS
FOR EXISTING HEARING PROTECTORS
IS APPROXIMATELY 0 TO 30
(HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)
EPA
LABEL REQUIRED BY
U S E P A REGULATION
40 CFR Part 211 Subpart B

Figure - 1

(d) The color of the label must be as specified in Subpart A.

[44 FR 56127, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980]

§ 211.204-3 Label location and type.

(a) The manufacturer labeling the product for ultimate sale or use selects the type of label and must locate it as follows:

(1) Affixed to the device or its carrying case; and

(2) Affixed to primary panel of the product packaging if the label complying with § 211.204-3(a)(1) is not visible at the point of ultimate purchase or the point of distribution to users.

(b) Labeling with a minimum sized label will occur as follows:

(1) If the protector is individually packaged and so displayed at the point of ultimate purchase or distribution to the prospective user, the package must be labeled as follows:

(i) If the primary panel of the package has dimensions greater than 3.8 x 5.0 cm (approximately 1½ x 2 in) the label must be presented on the primary panel.

(ii) If the primary panel of the package is equal to or smaller than 3.8 x 5.0 centimeters, a label at least 3.8 x 5.0 centimeters must be affixed to the package by means of a tag.

(2) If the protector is displayed at the point of ultimate purchase or distribution to prospective users in a permanent or disposable bulk container or dispenser, even if the protector is individually packaged within the dispenser and labeled as above, the container or dispenser itself must be labeled. The label must be readily visible to the ultimate purchaser or prospective user.

§ 211.204-4 Supporting information.

The following minimum supporting information must accompany the device in a manner that insures its availability to the prospective user. In the case of bulk packaging and dispensing, such supporting information must be affixed to the bulk container or dispenser in the same manner as the label, and in a readily visible location.

(a) The mean attenuation and standard deviation values obtained for each test frequency according to § 211.206, and the NRR calculated from those values. For "muff" type protectors with various use positions, the positions providing higher NRR values shall be identified, and their associated NRR values listed in bold type.

(b) The following statement, example and cautionary note: "The level of noise entering a person's ear, when hearing protector is worn as directed, is closely approximated by the difference between the A-weighted environmental noise level and the NRR.

EXAMPLE

1. The environmental noise level as measured at the ear is 92 dBA.

2. The NRR is (value on label) decibels dB).

3. The level of noise entering the ear is approximately equal to [92 dB(A)−NRR] dB(A).

CAUTION: For noise environments dominated by frequencies below 500 Hz the C-weighted environmental noise level should be used."

(c) The month and year of producion, which may be in the form of a erial number or a code in those intances where the records specified in 211.209(a)(1)(iv) are maintained;

(d) The following statement: "Improper fit of this device will reduce its ffectiveness in attenuating noise. Consult the enclosed instructions for proper fit";

(e) Instructions as to the proper inertion or placement of the device; and

(f) The following statement: "Alhough hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the Noise Reduction Rating (NRR) is based on the attenuation of *continuous* noise and may not be an accurate indicator of the protection attainable against *impulsive* noise such as gunire."

44 FR 56127, Sept. 28, 1979, as amended at 5 FR 8275, Feb. 6, 1980]

211.205 Special claims.

(a) Any manufacturer wishing to make claims regarding the acoustic efectiveness of a device, other than the Noise Reduction Rating, must be preared to demonstrate the validity of uch claims.

44 FR 56139, Sept. 28, 1979, as amended at 7 FR 57716, Dec. 28, 1982]

§ 211.206 Methods for measurement of sound attenuation.

§ 211.206-1 Real ear method.

(a) The value of sound attenuation to be used in the calculation of the Noise Reduction Rating must be determined according to the "Method for the Measurement of Real-Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs." This standard is approved as the American National Standards Institute Standard (ANSI STD) S3.19-1974. The provisions of this standard, with the modifications indicated below, are included by reference in this section. Copies of this standard may be obtained from: American National Standards Institute, Sales Department, 1430 Broadway, New York, New York 10018.

(b) For the purpose of this subpart only, sections 1, 2, 3 and Appendix A of the standard, as modified below, shall be applicable. These sections describe the "Real Ear Method." Other portions of the standard are not applicable in this section.

(1) The sound field characteristics described in paragraph 3.1.1.3 are "required."

(2) Sections 3.3.2 and 3.3.3 shall be accomplished in this order during the same testing session. Any breaks in testing should not allow the subject to engage in any activity that may cause a Temporary Threshold Shift.

(3) Section 3.3.3.1(1) shall not apply. Only "Experimenter fit" described in Section 3.3.3.1(2) is permitted.

(4) Section 3.3.3.3 applies to all devices except custom-molded devices. When testing custom-molded devices, each test subject must receive his own device molded to fit his ear canal.

[44 FR 56139, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980]

§ 211.206-2 Alternative test data.

(a) In lieu of testing according to § 211.206-1, manufacturers may use the latest available test data obtained according to ANSI STD Z24.22-1957 or ANSI STD S3.19-1974 to determine the mean attenuation and standard deviation for each test frequency and the NRR calculated from those values. Manufacturers whose data is based on the ANSI STD Z24.22-1957 measurement procedure must state in the supporting information required by § 211.204-4 that the mean attenuation and standard deviation values used to calculate the NRR are based on ANSI STD Z24.22-1957.

(b) Manufacturers who initially use available data based on ANSI STD Z24.22-1957 must retest within one year of the effective date of this regulation (by September 27, 1981) the affected categories of hearing protectors in accordance with § 211.206-1 of the regulation, and must relabel those categories as necessary.

(c) Manufacturers who use available data based on ANSI STD S3.19-1974 are not required to retest the affected categories of hearing protectors.

(d) If a manufacturer has both ANSI STD S3.19-1974 test data and ANSI STD Z24.22-1957 test data on a hearing protector category, that manufacturer must use the data obtained according to ANSI STD S3.19-1974.

[45 FR 8275, Feb. 6, 1980]

§§ 211.206-3—211.206-10 Alternative test methods. [Reserved]

§ 211.207 Computation of the noise reduction rating (NRR).

Calculate the NRR for hearing protective devices by substituting the average attenuation values and standard deviations for the pertinent protector category for the sample data used in steps #6 and #7 in Figure 2. The values of −.2, 0, 0, 0, −.2, −.8, −3.0 in Step 2 and −16.1, −8.6, −3.2, 0, +1.2, +1.0, −1.1 in Step 4 of Figure 2 represent the standard "C"- and "A"-weighting relative response corrections applied to any sound levels at the indicated octave band center frequencies. (NOTE: The manufacturer may label the protector at values lower than indicated by the test results and this computation procedure, e.g. lower NRR from lower attenuation values. (Ref. § 211.211(b).)

FIGURE 2—COMPUTATION OF THE NOISE REDUCTION RATING

Octave band center frequency (Hz)	125	250	500	1000	2000	3000	4000	6000	8000
1 Assumed Pink noise (dB)	100	100	100	100	100	....	100	....	100
2 "C" weighting corrections (dB)	−.2	0	0	0	−.2	....	−.8	....	−3.0
3 Unprotected ear "C"-weighted level (dB)	99.8	100	100	100	99.8	....	99.2	....	97.0
(The seven logarithmically added "C"-weighted sound pressure levels of Step #3 = 107.9 dS)									
4 "A"-weighting corrections (dB)	−16.1	−8.6	−3.2	0	+1.2	....	+1.0	....	−1.1
5 Unprotected ear "A"-weighted level (step #1-step #4) (dB)	83.9	91.4	96.8	100	101.2	....	101	....	98.9
6 Average attenuation in dB at frequency	21	22	23	29	41	....	(43+47)/2=45	....	(41+36)/2=38.5
7 Standard deviation in dB at frequency	3.7	3.3	3.8	4.7	3.3	....	(3.3+3.4)=6.7	....	(6.1+6.5)=12.6
	×2	×2	×2	×2	×2				
	7.4	6.6	7.6	9.4	6.6				
8 Step #5-(step #6-step #7) develops the protected ear "A" weighted levels (dB)	70.3	76.0	81.4	80.4	66.8	....	62.7	....	73.0
(The seven logarithmically added "A"-weighted sound pressure levels of Step #8 using this sample data = 85.1 dB)									

9 NRR = Step #3—Step #8—3 dB*; = 107.9 dB—85.1 dB—3 dB*; = 19.8 dB (or 20) (Round values ending in .5 to next lower whole number).

*Spectral uncertainty (as defined in § 211.203).

The value for #3 is constant. Use Logarithmic mathematics to determine the combined value of protected ear levels (Step #8) which is used in Step #9 to exactly derive the NRR; or use the following table as a substitute for logarithmic mathematics to determine the value of Step #8 and thus very closely approximate the NRR.

Difference between any two sound pressure levels being combined (dB)	Add this level to the higher of the two levels (dB)
to less than 1.5	3
.5 to less than 4.5	2
.5 to 9	1
reater than 9	0

211.208 Export provisions.

(a) The outside of each package or ontainer containing a hearing protecive device intended solely for export nust be so labeled or marked. This vill include all packages or containers hat are used for shipping, transporting, or dispersing the hearing protecive device along with any individual ackaging.

(b) In addition, the manufacturer of hearing protective device intended olely for export is subject to the xport exemption requirements of 211.110-3 of Subpart A.

ec. 10(b)(2), Pub. L. 92-574, 86 Stat. 1242 2 U.S.C. 4909(b)(2)))

211.210 Requirements.

7 FR 57716, Dec. 28, 1982]

211.210-1 General requirements.

(a) Every hearing protector manuactured for distribution in commerce the United States, and which is subect to this regulation:

(1) Must be labeled at the point of ltimate purchase or distribution to e prospective user according to the equirements of § 211.204 of this subart; and

(2) Must meet or exceed the mean tenuation values determined by the rocedure in § 211.206 and explained § 211.211(b).

(b) Manufacturers who distribute rotectors in commerce to another anufacturer for packaging for ultimate purchase or use must provide to that manufacturer the mean attenuation values and standard deviations at each of the one-third octave band center frequencies as determined by the test procedure in § 211.206. He must also provide the Noise Reduction Rating calculated according to § 211.207.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

[44 FR 56139, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980; 47 FR 57716, Dec. 28, 1982]

§ 211.210-2 Labeling requirements.

(a)(1) A manufacturer responsible for labeling must satisfy the requirements of this subpart for a category of hearing protectors before distributing that category of hearing protectors in commerce.

(2) A manufacturer may apply to the Administrator for an extension of time to comply with the labeling requirements for a category of protectors before he distributes any protectors in commerce. The Administrator may grant the manufacturer an extension of up to 20 days from the date of distribution. The manufacturer must provide reasonable assurance that the protectors equal or exceed their mean attenuation values, and that labeling requirements will be satisfied before the extension expires. Requests for extension should go to the Administrator, U.S. Environment Protection Agency, Washington, DC 20460. The Administrator must respond to a request within 2 business days. Responses may be either written or oral.

(3) A manufacturer, receiving hearing protectors through the chain of distribution that were labeled by a previous manufacturer, may use that previous manufacturer's data when labeling the protectors for ultimate sale or use, but is responsible for the accuracy of the information on the label. The manufacturer may elect to retest the protectors.

(b) Labeling requirements regarding each hearing protector category in a manufacturer's product line consist of:

(1) Testing hearing protectors according to § 211.206 and the hearing protectors must have been assembled

by the manufacturer's normal production process; and it must have been intended for distribution in commerce.

(c) Each category of hearing protectors is determined by the combination of at least the following parameters. Manufacturers may use additional parameters as needed to create and identify additional categories of protectors.

(1) *Ear muffs.* (i) Head band tension (spring constant);

(ii) Ear cup volume or shape;

(iii) Mounting of ear cup on head band;

(iv) Ear cushion;

(v) Material composition.

(2) *Ear inserts.* (i) Shape;

(ii) Material composition.

(3) *Ear caps.* (i) Head band tension (spring constant);

(ii) Mounting of plug on head band;

(iii) Shape of plug;

(iv) Material composition.

If an ear insert or ear cap is manufactured in more than one size (small, medium, large, etc.) each size does not constitute a separate category and is not required to be separately label verified. However, each size must be used when conducting the required test to determine the labeled values for the specified category.

[44 FR 56139, Sept. 28, 1979, as amended at 47 FR 57717, Dec. 28, 1982]

§ 211.211 Compliance with labeling requirement.

(a) All hearing protective devices manufactured after the effective date of this regulation, and meeting the applicability requirements of § 211.201, must be labeled according to this subpart, and must comply with the Labeled Values of mean attenuation.

(b) A manufacturer must take into account both product variability and test-to-test variability when labeling his devices in order to meet the requirements of paragraph (a) of this section. A specific category is considered when the attenuation value at the tested one-third octave band is equal to or greater than the Labeled Value, or mean attenuation value, stated in the supporting information required by § 211.204–4, for that tested frequency. The attenuation value must be determined according to the test procedures of § 211.206. The Noise Reduction Rating for the label must be calculated using the Labeled Values of mean attenuation that will be included in the supporting information required by § 211.204–4.

[47 FR 57717, Dec. 28, 1982]

§ 211.212 Compliance audit testing.

§ 211.212–1 Test request.

(a) The Administrator will request all testing under this section by means of a test request addressed to the manufacturer.

(b) The test request will be signed by the Assistant Administrator for Enforcement or his designee. The test request will be delivered by an EPA Enforcement Officer or sent by certified mail to the plant manager or other responsible official as designated by the manufacturer.

(c) In the test request, the Administrator must specify the following:

(1) The hearing protector category selected for testing;

(2) The manufacturer's plant or storage facility from which the protectors must be selected;

(3) The selection procedure the manufacturer will use to select test protectors;

(4) The test facility where the manufacturer is required to have the protectors tested;

(5) The number of protectors to be forwarded to the designated test facility and the number of those protectors which must be tested by the facility.

(6) The time period allowed for the manufacturer to initiate testing; and

(7) Any other information that will be necessary to conduct testing under this section.

(d) The test request may provide for situations in which the selected category is unavailable for testing. It may include an alternative category to be selected for testing in the event that protectors of the first specified category are not available because the protectors are not being manufactured at the specified plant, at the specified time, and are not being stored at the specified plant or storage facility.

(e)(1) Any testing conducted by the manufacturer under a test request must commence within the period specified within the test request. The Administrator may extend the time period on request by the manufacturer, if a test facility is not available to conduct the testing.

(2) The manufacturer must complete the required testing within one week following commencement of the testing.

(3) The manufacturer will be allowed 1 calendar week to send test hearing protectors from the assembly plant to the testing facility. The Administrator may approve more time based upon a request by the manufacturer. The request must be accompanied by a satisfactory justification.

(f) Failure to comply with any of the requirements of this section will not be considered a violation of these regulations if conditions and circumstances outside the control of the manufacturer render it impossible for him to comply. These conditions and circumstances include, but are not limited to, the temporary unavailability of equipment and personnel needed to conduct the required tests. The manufacturer bears the burden of establishing the presence of the conditions and circumstances.

Sec. 13. Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

[44 FR 56139, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980; 47 FR 57717, Dec. 28, 1982]

§ 211.212-2 Test hearing protector selection.

(a) The test request will specify the number of test protectors which will be selected for testing from the number of protectors delivered to the test facility in accordance with § 211.212-1(c)(5). The remainder may be used as replacement protectors if replacement is necessary. The test request will also specify that the protectors be selected from the next batch scheduled for production after receipt of the test request.

(b) If random selection is specified, t must be achieved by sequentially numbering all the protectors in the group and then using a table of random numbers to select the test hearing protectors. The manufacturer may use an alternative random selection plan when it is approved by the Administrator.

(c) Each test protector of the category selected for testing must have been assembled, by the manufacturer, for distribution in commerce using the manufacturer's normal production process.

(d) At their discretion, EPA Enforcement Officers, rather than the manufacturer, may select the protectors designated in the test request.

(e) The manufacturer must keep on hand the test protectors designated for testing until such time as the category is determined to be in compliance. Hearing protectors actually tested and found to be in compliance with these regulations may be distributed in commerce.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

[44 FR 56139, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980]

§ 211.212-3 Test hearing protector preparation.

The manufacturer must select the test hearing protector according to § 211.212-2 before the official test, and must comply with the test protector preparation requirements described in this subpart:

(a) A test hearing protector selected according to § 211.212-2 must not be tested, modified, or adjusted in any manner before the official test unless the adjustments, modifications and/or tests are part of the manufacturer's prescribed manufacturing and inspection procedures.

(b) Quality controls, testing, assembly or selection procedures must not be, used on the completed protector or any portion of the protector, including parts, that will not normally be used during the production and assembly of all other protectors of that category to be distributed in commerce.

[47 FR 57717, Dec. 28, 1982]

§ 211.212-4 Testing procedures.

(a) The manufacturer must conduct one valid test according to the test procedures specified in § 211.206 for each hearing protector selected for testing under § 211.212-2.

(b) The manufacturer must not repair or adjust the test hearing protectors once compliance testing has been initiated. In the event a hearing protector is unable to complete the test, the manufacturer may replace the protector. Any replacement protector will be of the same category as the protector being replaced. It will be selected from the remaining designated test protectors and will be subject to all the provisions of these regulations. Any replacement and the reason for replacement must be reported in the compliance audit test report.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

§ 211.212-5 Reporting of test results.

(a)(1) The manufacturer must submit to the Administrator a copy of the Compliance Audit Test report for all testing conducted under § 211.212. It must be submitted within 5 days after completion of testing. A suggested compliance audit test report form is included as Appendix B.

(2) The manufacturer must provide the following test information:

(i) Category identification;

(ii) Production date, and model of hearing protector;

(iii) The name and location of the test facility used;

(iv) The completed data sheet in the form specified for all tests including, for each invalid test, the reason for invalidation; and

(v) The reason for the replacement where a replacement protector was necessary.

(3) The manufacturer must provide the following statement and endorsement:

> This report is submitted under section 8 and section 13 of the Noise Control Act of 1972. All testing, for which data are reported here, was conducted in strict conformance with applicable regulations under 40 CFR Part 211 et seq. All the data reported are true and accurate representations of this testing. All other information reported here is, to the best of (company name) and (test laboratory name) knowledge, true and accurate. I am aware of the penalties associated with violation of the Noise Control Act of 1972 and the regulations published under it. (authorized representative)

If the testing is conducted by an outside laboratory the manufacturer must require an authorized representative of the laboratory to cosign both the statement and the endorsement.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports required in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) The reporting requirements of this regulation will no longer be effective after five (5) years from the date of publication; however, the requirements will remain in effect if the Administrator is taking appropriate steps to repromulgate or modify the reporting requirements at that time.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

§ 211.212-6 Determination of compliance.

(a) A category will be in compliance with these requirements if the results of the test conducted under the test request show that:

(1) The mean attenuation value, at each one-third octave band center frequency as determined from the Compliance Audit Test values plus 3 dB(A), is equal to or greater than the mean attenuation value at the same one-third octave band as stated in the Supporting Information required by § 211.204-4; and

(2) The Noise Reduction Rating, when calculated from the mean attenuation values determined by Compliance Audit Testing, equals or exceeds the Noise Reduction Rating as stated on the label required by § 211.204.

(b) If a category is not in compliance, as determined in paragraph (a) of this section, the manufacturer must satisfy the continued testing requirements of § 211.212-7, and the relabeling requirements of § 211.212-8 before further distributing hearing protectors of that category in commerce.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

[44 FR 56139, Sept. 28, 1979, as amended at 47 FR 57717, Dec. 28, 1982]

§ 211.212-7 Continued compliance testing.

If a category is not in compliance as determined under § 211.212-6, the manufacturer must satisfy the requirements of paragraph (a) or (b) of this section.

(a) The manufacturer must continue to conduct additional tests until the mean attenuation values from the last test at each octave band equal or exceed the lowest attenuation values obtained from all previous compliance tests.

(b) Upon approval by the Administrator, the manufacturer may relabel at a lower level in compliance with § 211.212-8 in lieu of testing under paragraph (a) of this section. The manufacturer must obtain approval by showing that the relabeled values adequately take into account results achieved from the Compliance Audit Testing and product variability. The Administrator is to exercise his discretion in light of factors including the prior compliance record of the manufacturer, the adequacy of the proposed new labeling value, the amount of deviation of test results from the labeled values, and any other relevant information.

(c) When the manufacturer can show that the non-compliance under § 211.212-6 was caused by a quality control failure and that the failure has been remedied, he may, with the Administrator's approval, conduct an additional test and relabel using the mean attenuation values no higher than those obtained in that test.

(d) The manufacturer may request a hearing on the issue of whether the compliance audit testing was conducted properly and whether the criteria for non-compliance in § 211.212-6 have been met; and the appropriateness or scope of a continued testing order. In the event that a hearing is requested, the hearing shall begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing, nor the fact that a hearing is in progress, shall affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(Sec. 13, Pub. L. 92-574, 86 Stat. 1244 (42 U.S.C. 4912))

[44 FR 56139, Sept. 28, 1979, as amended at 45 FR 8275, Feb. 6, 1980]

§ 211.212-8 Relabeling requirements.

(a) Any manufacturer who is found to not conform with § 211.212-6, and who has met the requirement of § 211.212-7, must relabel all protectors of the specified category already in his possession according to § 211.211 before distributing them in commerce. The manufacturer shall relabel at values no greater than any mean attenuation values received from Compliance Audit Testing. Any manufacturer who proceeds with § 211.212-7(a) or (b) must relabel his product line with the lowest mean attenuation value at each octave band received from testing; or he may take into account product variability under § 211.211(b) and label with a lower mean attenuation value than the worst case values obtained from Compliance Audit Testing.

(Sec. 10(a)(3), Pub. L. 92-574, 86 Stat. 1242 (42 U.S.C. 4909(a)(3)))

§ 211.213 Remedial orders for violations of these regulations.

(a) The Administrator may issue an order under section 11(d)(1) of the Act when any person is in violation of these regulations.

(b) A remedial order will be issued only after the violator has been notified of the violation and given an opportunity for a hearing according to section 554 of Title 5 of the United States Code.

(c) All costs associated with a remedial order shall be borne by the violator.

(Sec. 11(d) Pub. L. 92-574, 86 Stat. 1243 (42 U.S.C. 4910(d)))

§ 211.214 Removal of label.

Section 10(a)(4) of the Act prohibits any person from removing, prior to sale, any label required by this subpart, by either physical removal or defacing or any other physical act making the label and its contents not accessible to the ultimate purchaser prior to sale.

(Sec. 10(a)(4), Pub. L. 92-574, 86 Stat. 1242 (42 U.S.C. 4909(a)(4)))

APPENDIX A—COMPLIANCE AUDIT TESTING REPORT

Data Sheet

Company name: ______

Address: ______

Test laboratory: ______

Address: ______

Model number of hearing protector: ______

Category designation: ______

Production date: ______

Test Results—Frequency, Mean Attenuation, and Standard Deviation

125 ______

250 ______

500 ______

1000 ______

2000 ______

3150 ______

4000 ______

6300 ______

8000 ______

Noise Reduction Rating: ______

If replacement hearing protector was necessary to conduct test, reason for replacement:

This report is submitted under sections 8 and 13 of the Noise Control Act of 1972. All testing, for which data are reported here, was conducted in strict conformance with applicable regulations under 40 CFR Part 211, et seq. All the data reported here are true and accurate representations of this testing. All other information reported here is, to the best of (company name) and (test laboratory name) knowledge, true and accurate. I am aware of the penalties associated with violation of the Noise Control Act of 1972 and the regulations published under it.

______

(Authorized representative of company)

______

(Authorized representative of test laboratory)

[44 FR 56139, Sept. 28, 1979. Redesignated at 47 FR 57717, Dec. 28, 1982]

SUBCHAPTER H—OCEAN DUMPING

PART 220—GENERAL

Sec.
220.1 Purpose and scope.
220.2 Definitions.
220.3 Categories of permits.
220.4 Authorities to issue permits.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2468, Jan. 11, 1977, unless otherwise noted.

§ 220.1 Purpose and scope.

(a) *General.* This Subchapter H establishes procedures and criteria for the issuance of permits by EPA pursuant to section 102 of the Act. This Subchapter H also establishes the criteria to be applied by the Corps of Engineers in its review of activities involving the transportation of dredged material for the purpose of dumping it in ocean waters pursuant to section 103 of the Act. Except as may be authorized by a permit issued pursuant to this Subchapter H, or pursuant to section 103 of the Act, and subject to other applicable regulations promulgated pursuant to section 108 of the Act:

(1) No person shall transport from the United States any material for the purpose of dumping it into ocean waters;

(2) In the case of a vessel or aircraft registered in the United States or flying the United States flag or in the case of a United States department, agency, or instrumentality, no person shall transport from any location any material for the purpose of dumping it into ocean waters; and

(3) No person shall dump any material transported from a location outside the United States:

(i) Into the territorial sea of the United States; or

(ii) Into a zone contiguous to the territorial sea of the United States, extending to a line twelve nautical miles seaward from the base line from which the breadth of the territorial sea is measured, to the extent that it may affect the territorial sea or the territory of the United States.

(b) *Relationship to international agreements.* In accordance with section 102(a) of the Act, the regulations and criteria included in this Subchapter H apply the standards and criteria binding upon the United States under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter to the extent that application of such standards and criteria do not relax the requirements of the Act.

(c) *Exclusions*—(1) *Fish wastes.* This Subchapter H does not apply to, and no permit hereunder shall be required for, the transportation for the purpose of dumping or the dumping in ocean waters of fish wastes unless such dumping occurs in:

(i) Harbors or other protected or enclosed coastal waters; or

(ii) Any other location where the Administrator finds that such dumping may reasonably be anticipated to endanger health, the environment or ecological systems.

(2) *Fisheries resources.* This Subchapter H does not apply to, and no permit hereunder shall be required for, the placement or deposit of oyster shells or other materials for the purpose of developing, maintaining or harvesting fisheries resources; provided, such placement or deposit is regulated under or is a part of an authorized State or Federal program certified to EPA by the agency authorized to enforce the regulation, or to administer the program, as the case may be; and provided further, that the National Oceanic and Atmospheric Administration, the U.S. Coast Guard, and the U.S. Army Corps of Engineers concur in such placement or deposit as it may affect their responsibilities and such concurrence is evidenced by letters of concurrence from these agencies.

(3) *Vessel propulsion and fixed structures.* This Subchapter H does not apply to, and no permit hereunder shall be required for:

(i) Routine discharges of effluent incidental to the propulsion of vessels or the operation of motor-driven equipment on vessels; or

(ii) Construction of any fixed structure or artificial island, or the intentional placement of any device in ocean waters or on or in the submerged land beneath such waters, for a purpose other than disposal when such construction or such placement is otherwise regulated by Federal or State law or made pursuant to an authorized Federal or State program certified to EPA by the agency authorized to enforce the regulations or to administer the program, as the case may be.

(4) *Emergency to safeguard life at sea.* This Subchapter H does not apply to, and no permit hereunder shall be required for, the dumping of material into ocean waters from a vessel or aircraft in an emergency to safeguard life at sea to the extent that the person owning or operating such vessel or aircraft files timely reports required by § 224.2(b).

§ 220.2 Definitions.

As used in this Subchapter H:

(a) "Act" means the Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1401);

(b) "FWPCA" means the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251);

(c) "Ocean" or "ocean waters" means those waters of the open seas lying seaward of the baseline from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone (15 UST 1606; TIAS 5639); this definition includes the waters of the territorial sea, the contiguous zone and the oceans as defined in section 502 of the FWPCA.

(d) "Material" means matter of any kind or description, including, but not limited to, dredged material, solid waste, incinerator residue, garbage, sewage, sewage sludge, munitions, radiological, chemical, and biological warfare agents, radioactive materials, chemicals, biological and laboratory waste, wreck or discarded equipment, rock, sand, excavation debris, industrial, municipal, agricultural, and other waste, but such term does not mean sewage from vessels within the meaning of section 312 of the FWPCA. Oil within the meaning of section 311 of the FWPCA shall constitute "material" for purposes of this Subchapter H only to the extent that it is taken on board a vessel or aircraft for the primary purpose of dumping.

(e) "Dumping" means a disposition of material: *Provided,* That it does not mean a disposition of any effluent from any outfall structure to the extent that such disposition is regulated under the provisions of the FWPCA, under the provisions of section 13 of the River and Harbor Act of 1899, as amended (33 U.S.C. 407), or under the provisions of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011), nor does it mean a routine discharge of effluent incidental to the propulsion of, or operation of motor-driven equipment on, vessels: *Provided further,* That it does not mean the construction of any fixed structure or artificial island nor the intentional placement of any device in ocean waters or on or in the submerged land beneath such waters, for a purpose other than disposal, when such construction or such placement is otherwise regulated by Federal or State law or occurs pursuant to an authorized Federal or State program; And provided further, That it does not include the deposit of oyster shells, or other materials when such deposit is made for the purpose of developing, maintaining, or harvesting fisheries resources and is otherwise regulated by Federal or State law or occurs pursuant to an authorized Federal or State program.

(f) "Sewage Treatment Works" means municipal or domestic waste treatment facilities of any type which are publicly owned or regulated to the extent that feasible compliance schedules are determined by the availability of funding provided by Federal, State, or local governments.

(g) "Criteria" means the criteria set forth in Part 227 of this Subchapter H.

(h) "Dredged Material Permit" means a permit issued by the Corps of Engineers under section 103 of the Act (see 33 CFR 209.120) and any Federal projects reviewed under section 103(e) of the Act (see 33 CFR 209.145).

(i) Unless the context otherwise requires, all other terms shall have the meanings assigned to them by the Act.

§ 220.3 Categories of permits.

This § 220.3 provides for the issuance of general, special, emergency, interim and research permits for ocean dumping under section 102 of the Act.

(a) *General permits.* General permits may be issued for the dumping of certain materials which will have a minimal adverse environmental impact and are generally disposed of in small quantities, or for specific classes of materials that must be disposed of in emergency situations. General permits may be issued on application of an interested person in accordance with the procedures of Part 221 or may be ssued without such application whenever the Administrator determines that issuance of a general permit is necessary or appropriate.

(b) *Special permits.* Special permits may be issued for the dumping of maerials which satisfy the Criteria and shall specify an expiration date no ater than three years from the date of issue.

(c) *Emergency permits.* For any of he materials listed in § 227.6, except as trace contaminants, after consultaion with the Department of State with respect to the need to consult with parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter hat are likely to be affected by the dumping, emergency permits may be ssued to dump such materials where here is demonstrated to exist an mergency requiring the dumping of uch materials, which poses an unaceptable risk relating to human health and admits of no other feasible soluion. As used herein, "emergency" efers to situations requiring action with a marked degree of urgency, but is not limited in its application to cirumstances requiring immediate ction. Emergency permits may be ssued for other materials, except hose prohibited by § 227.5, without onsultation with the Department of State when the Administrator determines that there exists an emergency equiring the dumping of such materials which poses an unacceptable risk to human health and admits of no other feasible solution.

(d) *Interim permits.* Prior to April 23, 1978, interim permits may be issued in accordance with Subpart A of Part 227 to dump materials which are not in compliance with the environmental impact criteria of Subpart B of Part 227, or which would cause substantial adverse effects as determined in accordance with the criteria of Subpart D or E of Part 227 or for which an ocean disposal site has not been designated on other than an interim basis pursuant to Part 228 of this Subchapter H; provided, however, no permit may be issued for the ocean dumping of any materials listed in § 227.5, or for any of the materials listed in § 227.6, except as trace contaminants; provided further that the compliance date of April 23, 1978, does not apply to the dumping of wastes by existing dumpers when the Regional Administrator determines that the permittee has exercised his best efforts to comply with all requirements of a special permit by April 23, 1978, and has an implementation schedule adequate to allow phasing out of ocean dumping or compliance with all requirements necessary to receive a special permit by December 31, 1981, at the latest. No interim permit will be granted for the dumping of waste from a facility which has not previously dumped wastes in the ocean from a new facility, or for the dumping of an increased amount of waste from the expansion or modification of an existing facility, after the effective date of these regulations (except when the facility is operated by a municipality now dumping such wastes). No interim permit will be issued for the dumping of any material in the ocean for which an interim permit had previously been issued unless the applicant demonstrates that he has exercised his best efforts to comply with all provisions of the previously issued permits. Interim permits shall specify an expiration date no later than one year from the date of issue.

(e) *Research permits.* Research permits may be issued for the dumping of any materials, other than materials specified in § 227.5 or for any of the materials listed in § 227.6 except as trace contaminants, unless subject to the exclusion of § 227.6(g), into the ocean as part of a research project when it is determined that the scientific merit of the proposed project outweighs the potential environmental or other damage that may result from the dumping. Research permits shall specify an expiration date no later than 18 months from the date of issue.

(f) *Permits for incineration at sea.* Permits for incineration of wastes at sea will be issued only as research permits or as interim permits until specific criteria to regulate this type of disposal are promulgated, except in those cases where studies on the waste, the incineration method and vessel, and the site have been conducted and the site has been designated for incineration at sea in accordance with the procedures of § 228.4(b). In all other respects the requirements of Parts 220 through 228 apply.

[42 FR 2468, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978]

§ 220.4 Authorities to issue permits.

(a) *Determination by Administrator.* The Administrator, or such other EPA employee as he may from time to time designate in writing, shall issue, deny, modify, revoke, suspend, impose conditions on, initiate and carry out enforcement activities and take any and all other actions necessary or proper and permitted by law with respect to general, special, emergency, interim, or research permits.

(b) *Authority delegated to Regional Administrators.* Regional Administrators, or such other EPA employees as they may from time to time designate in writing, are delegated the authority to issue, deny, modify, revoke, suspend, impose conditions on, initiate and carry out enforcement activities, and take any and all other actions necessary or proper and permitted by law with respect to special and interim permits for:

(1) The dumping of material in those portions of the territorial sea which are subject to the jurisdiction of any State within their respective Regions, and in those portions of the contiguous zone immediately adjacent to such parts of the territorial sea; and in the oceans with respect to approved waste disposal sites designated pursuant to Part 228 of this Subchapter H, and

(2) Where transportation for dumping is to originate in one Region and dumping is to occur at a location within another Region's jurisdiction conferred by order of the Administrator, the Region in which transportation is to originate shall be responsible for review of the application and shall prepare the technical evaluation of the need for dumping and alternatives to ocean dumping. The Region having jurisdiction over the proposed dump site shall take all other actions required by this Subchapter H with respect to the permit application, including without limitation, determining to issue or deny the permit, specifying the conditions to be imposed, and giving public notice. If both Regions do not concur in the disposition of the permit application, the Administrator will make the final decision on all issues with respect to the permit application, including without limitation, issuance or denial of the permit and the conditions to be imposed.

(c) *Review of Corps of Engineers Dredged Material Permits.* Regional Administrators have the authority to review, to approve or to disapprove or to propose conditions upon Dredged Material Permits for ocean dumping of dredged material at locations within the respective Regional jurisdictions. Regional jurisdiction to act under this paragraph (c) of § 220.4 is determined by the Administrator in accordance with § 228.4(e).

PART 221—APPLICATIONS FOR OCEAN DUMPING PERMITS UNDER SECTION 102 OF THE ACT

Sec.
221.1 Applications for permits.
221.2 Other information.
221.3 Applicant.
221.4 Adequacy of information in application.
221.5 Processing fees.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2470, Jan. 11, 1977, unless otherwise noted.

§ 221.1 Applications for permits.

Applications for general, special, emergency, interim and research permits under section 102 of the Act may be filed with the Administrator or the appropriate Regional Administrator, as the case may be, authorized by § 220.4 to act on the application. Applications shall be made in writing and shall contain, in addition to any other material which may be required, the following:

(a) Name and address of applicant;

(b) Name of the person or firm transporting the material for dumping, the name of the person(s) or firm(s) producing or processing all materials to be transported for dumping, and the name or other identification, and usual location, of the conveyance to be used in the transportation and dumping of the material to be dumped, including information on the transporting vessel's communications and navigation equipment;

(c) Adequate physical and chemical description of material to be dumped, including results of tests necessary to apply the Criteria, and the number, size, and physical configuration of any containers to be dumped;

(d) Quantity of material to be dumped;

(e) Proposed dates and times of disposal;

(f) Proposed dump site, and in the event such proposed dump site is not a dump site designated in this Subchapter H, detailed physical, chemical and biological information relating to the proposed dump site and sufficient to support its designation as a site according to the procedures of Part 228 of this Subchapter H;

(g) Proposed method of releasing the material at the dump site and means by which the disposal rate can be controlled and modified as required;

(h) Identification of the specific process or activity giving rise to the production of the material;

(i) Description of the manner in which the type of material proposed to be dumped has been previously disposed of by or on behalf of the person(s) or firm(s) producing such material;

(j) A statement of the need for the proposed dumping and an evaluation of short and long term alternative means of disposal, treatment or recycle of the material. Means of disposal shall include without limitation, landfill, well injection, incineration, spread of material over open ground; biological, chemical or physical treatment; recovery and recycle of material within the plant or at other plants which may use the material, and storage. The statement shall also include an analysis of the availability and environmental impact of such alternatives; and

(k) An assessment of the anticipated environmental impact of the proposed dumping, including without limitation, the relative duration of the effect of the proposed dumping on the marine environment, navigation, living and non-living marine resource exploitation, scientific study, recreation and other uses of the ocean.

§ 221.2 Other information.

In the event the Administrator, Regional Administrator, or a person designated by either to review permit applications, determines that additional information is needed in order to apply the Criteria, he shall so advise the applicant in writing. All additional information requested pursuant to this § 221.2 shall be deemed part of the application and for purposes of applying the time limitation of § 222.1, the application will not be considered complete until such information has been filed.

§ 221.3 Applicant.

Any person may apply for a permit under this Subchapter H even though the proposed dumping may be carried on by a permittee who is not the applicant; provided however, that the Administrator or the Regional Administrator, as the case may be, may, in his discretion, require that an application be filed by the person or firm producing or processing the material proposed to be dumped. Issuance of a permit will not excuse the permittee from any civil or criminal liability which may attach by virtue of his having transported or dumped materials in violation of the terms or conditions of a permit, notwithstanding that the permittee may not have been the applicant.

§ 221.4 Adequacy of information in application.

No permit issued under this Subchapter H will be valid for the transportation or dumping of any material which is not accurately and adequately described in the application. No permittee shall be relieved of any liability which may arise as a result of the transportation or dumping of material which does not conform to information provided in the application solely by virtue of the fact that such information was furnished by an applicant other than the permittee.

§ 221.5 Processing fees.

(a) A processing fee of $1,000 will be charged in connection with each application for a permit for dumping in an existing dump site designated in this Subchapter H.

(b) A processing fee of an additional $3,000 will be charged in connection with each application for a permit for dumping in a dump site other than a dump site designated in this Subchapter H.

(c) Notwithstanding any other provision of this § 221.5, no agency or instrumentality of the United States or of a State or local government will be required to pay the processing fees specified in paragraphs (a) and (b) of this section.

PART 222—ACTION ON OCEAN DUMPING PERMIT APPLICATIONS UNDER SECTION 102 OF THE ACT

Sec.
222.1 General.
222.2 Tentative determinations.
222.3 Notice of applications.
222.4 Initiation of hearings.
222.5 Time and place of hearings.
222.6 Presiding Officer.
222.7 Conduct of public hearing.
222.8 Recommendations of Presiding Officer.
222.9 Issuance of permits.
222.10 Appeal to adjudicatory hearing.
222.11 Conduct of adjudicatory hearings.
222.12 Appeal to Administrator.
222.13 Computation of time.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2471, Jan. 11, 1977, unless otherwise noted.

§ 222.1 General.

Decisions as to the issuance, denial, or imposition of conditions on general, special, emergency, interim and research permits under section 102 of the Act will be made by application of the criteria of Parts 227 and 228. Final action on any application for a permit will, to the extent practicable, be taken within 180 days from the date a complete application is filed.

§ 222.2 Tentative determinations.

(a) Within 30 days of the receipt of his initial application, an applicant shall be issued notification of whether his application is complete and what, if any, additional information is required. No such notification shall be deemed to foreclose the Administrator or the Regional Administrator, as the case may be, from requiring additional information at any time pursuant to § 221.2.

(b) Within 30 days after receipt of a completed permit application, the Administrator or the Regional Administrator, as the case may be, shall publish notice of such application including a tentative determination with respect to issuance or denial of the permit. If such tentative determination is to issue the permit, the following additional tentative determinations will be made:

(1) Proposed time limitations, if any;

(2) Proposed rate of discharge from the barge or vessel transporting the waste;

(3) Proposed dumping site; and

(4) A brief description of any other proposed conditions determined to be appropriate for inclusion in the permit in question.

§ 222.3 Notice of applications.

(a) *Contents.* Notice of every complete application for a general, special, interim, emergency and research permit shall, in addition to any other material, include the following:

(1) A summary of the information included in the permit application;

(2) Any tentative determinations made pursuant to paragraph (b) of § 222.2;

(3) A brief description of the procedures set forth in § 222.5 for requesting a public hearing on the application including specification of the date by which requests for a public hearing must be filed;

(4) A brief statement of the factors considered in reaching the tentative determination with respect to the permit and, in the case of a tentative determination to issue the permit, the reasons for the choice of the particular permit conditions selected; and

(5) The location at which interested persons may obtain further information on the proposed dumping, including copies of any relevant documents.

(b) *Publication*—(1) *Special, interim and research permits.* Notice of every complete application for special, interim and research permits shall be given by:

(i) Publication in a daily newspaper of general circulation in the State in closest proximity to the proposed dump site; and

(ii) Publication in a daily newspaper of general circulation in the city in which is located the office of the Administrator or the Regional Administrator, as the case may be, giving notice of the permit application.

(2) *General permits.* Notice of every complete application for a general permit or notice of action proposed to be taken by the Administrator to issue a general permit, without an application, shall be given by publication in the FEDERAL REGISTER.

(3) *Emergency permits.* Notice of every complete application for an emergency permit shall be given by publication in accordance with paragraphs (b)(1)(i) and (ii) of this section; *Provided, however,* That no such notice and no tentative determination in accordance with § 222.2 shall be required in any case in which the Administrator determines:

(i) That an emergency, as defined in paragraph (c) of § 220.3 exists;

(ii) That the emergency poses an unacceptable risk relating to human health;

(iii) That the emergency admits of no other feasible solution; and

(iv) That the public interest requires the issuance of an emergency permit as soon as possible.

Notice of any determination made by the Administrator pursuant to this paragraph (b)(3) shall be given as soon as practicable after the issuance of the emergency permit by publication in accordance with paragraphs (b)(1)(i) and (ii) and with paragraphs (a), (c) through (i) of this section.

(c) *Copies of notice sent to specific persons.* In addition to the publication of notice required by paragraph (b) of this section, copies of such notice will be mailed by the Administrator or the Regional Administrator, as the case may be, to any person, group or Federal, State or local agency upon request. Any such request may be a standing request for copies of such notices and shall be submitted in writing to the Administrator or to any Regional Administrator and shall relate to all or any class of permit applications which may be acted upon by the Administrator or such Regional Administrator, as the case may be.

(d) *Copies of notice sent to States.* In addition to the publication of notice required by paragraph (b) of this section, copies of such notice will be mailed to the State water pollution control agency and to the State agency responsible for carrying out the Coastal Zone Management Act, if such agency exists, for each coastal State within 500 miles of the proposed dumping site.

(e) *Copies of notice sent to Corps of Engineers.* In addition to the publication of notice required by paragraph (b) of this section, copies of such notice will be mailed to the office of the appropriate District Engineer of the U.S. Army Corps of Engineers for purposes of section 106(c) of the Act, (pertaining to navigation, harbor approaches, and artificial islands on the outer continental shelf).

(f) *Copies of notice sent to Coast Guard.* In addition to the publication of notice required by paragraph (b) of this section, copies of such notice will be sent to the appropriate district office of the U.S. Coast Guard for review and possible suggestion of additional conditions to be included in the permit to facilitate surveillance and enforcement.

(g) *Fish and Wildlife Coordination Act.* The Fish and Wildlife Coordination Act, Reorganization Plan No. 4 of 1970, and the Act require that the Administrator or the Regional Administrator, as the case may be, consult with appropriate regional officials of the Departments of Commerce and Interior, the Regional Director of the NMFS-NOAA, and the agency exercising administrative jurisdiction over the fish and wildlife resources of the States subject to any dumping prior to the issuance of a permit under this Subchapter H. Copies of the notice shall be sent to the persons noted in paragraph (g) of this section.

(h) *Copies of notice sent to Food and Drug Administration.* In addition to the publication of notice required by paragraph (b) of this section, copies of such notice will be mailed to Food and Drug Administration, Shellfish Sanitation Branch (HF-417), 200 C Street SW., Washington, DC 20204.

(i) *Failure to give certain notices.* Failure to send copies of any public notice in accordance with paragraphs (c) through (h) of this section shall not invalidate any notice given pursuant to this section nor shall such failure invalidate any subsequent administrative proceeding.

(j) *Failure of consulted agency to respond.* Unless advice to the contrary is received from the appropriate Federal or State agency within 30 days of the date copies of any public notice were dispatched to such agency, such agency will be deemed to have no objection to the issuance of the permit identified in the public notice.

§ 222.4 Initiation of hearings.

(a) In the case of any permit application for which public notice in advance of permit issuance is required in accordance with paragraph (b) of § 222.3, any person may, within 30 days of the date on which all provisions of paragraph (b) of § 222.3 have been complied with, request a public hearing to consider the issuance or denial of, or the conditions to be imposed upon, such permit. Any such request for a public hearing shall be in writing, shall identify the person requesting the hearing, shall state with particularity any objections to the issuance or denial of, or to the conditions to be imposed upon, the proposed permit, and shall state the issues which are proposed to be raised by such person for consideration at a hearing.

(b) Whenever (1) a written request satisfying the requirements of paragraph (a) of this section has been received and the Administrator or Regional Administrator, as the case may be, determines that such request presents genuine issues, or (2) the Administrator or Regional Administrator, as the case may be, determines in his discretion that a public hearing is necessary or appropriate, the Administrator or the Regional Administrator, as the case may be, will set a time and place for a public hearing in accordance with § 222.5, and will give notice of such hearing by publication in accordance with § 222.3.

(c) In the event the Administrator or the Regional Administrator, as the case may be, determines that a request filed pursuant to paragraph (a) of this section does not comply with the requirements of such paragraph (a) of this section or that such request does not present substantial issues of public interest, he shall advise, in writing, the person requesting the hearing of his determination.

§ 222.5 Time and place of hearings.

Hearings shall be held in the State in closest proximity to the proposed dump site, whenever practicable, and shall be set for the earliest practicable date no less than 30 days after the receipt of an appropriate request for a hearing or a determination by the Administrator or the Regional Administrator, as the case may be, to hold such a hearing without such a request.

§ 222.6 Presiding Officer.

A hearing convened pursuant to this Subchapter H shall be conducted by a Presiding Officer. The Administrator or Regional Administrator, as the case may be, may designate a Presiding Officer. For adjudicatory hearings held pursuant to § 222.11, the Presiding Officer shall be an EPA employee who has had no prior connection with the

ermit application in question, includ-
ng without limitation, the perform-
nce of investigative or prosecuting
unctions or any other functions, and
vho is not employed in the Enforce-
nent Division or any Regional en-
orcement office.

2 FR 2471, Jan. 11, 1977; 42 FR 6583, Feb.
, 1977]

222.7 Conduct of public hearing.

The Presiding Officer shall be re-
ponsible for the expeditious conduct
f the hearing. The hearing shall be
n informal public hearing, not an ad-
ersary proceeding, and shall be con-
ucted so as to allow the presentation
f public comments. When the Presid-
ng Officer determines that it is neces-
ary or appropriate, he shall cause a
uitable record, which may include a
erbatim transcript, of the proceed-
ngs to be made. Any person may
ppear at a public hearing convened
ursuant to § 222.5 whether or not he
equested the hearing, and may be
epresented by counsel or any other
uthorized representative. The Presid-
ng Officer is authorized to set forth
easonable restrictions on the nature
r amount of documentary material or
estimony presented at a public hear-
ng, giving due regard to the relevancy
f any such information, and to the
voidance of undue repetitiveness of
nformation presented.

222.8 Recommendations of Presiding Officer.

Within 30 days following the ad-
ournment of a public hearing con-
ened pursuant to § 222.5, or within
uch additional period as the Adminis-
rator or the Regional Administrator,
s the case may be, may grant to the
residing Officer for good cause
hown, and after full consideration of
he comments received at the hearing,
he Presiding Officer will prepare and
orward to the Administrator or to the
egional Administrator, as the case
ay be, written recommendations re-
ating to the issuance or denial of, or
onditions to be imposed upon, the
roposed permit and the record of the
earing, if any. Such recommenda-
ions shall contain a brief statement of
he basis for the recommendations in-
luding a description of evidence relied upon. Copies of the Presiding Officer's recommendations shall be provided to any interested person on request, without charge. Copies of the record will be provided in accordance with 40 CFR Part 2.

[42 FR 2471, Jan. 11, 1977; 42 FR 6583, Feb. 3, 1977]

§ 222.9 Issuance of permits.

(a) Within 30 days following receipt of the Presiding Officer's recommendations or, where no hearing has been held, following the close of the 30-day period for requesting a hearing as provided in § 222.4, the Administrator or the Regional Administrator, as the case may be, shall make a determination with respect to the issuance, denial, or imposition of conditions on, any permit applied for under this Subchapter H and shall give notice to the applicant and to all persons who registered their attendance at the hearing by providing their name and mailing address, if any, by mailing a letter stating the determination and stating the basis therefor in terms of the Criteria.

(b) Any determination to issue or deny any permit after a hearing held pursuant to § 222.7 shall take effect no sooner than:

(1) 10 days after notice of such determination is given if no request for an adjudicatory hearing is filed in accordance with § 222.10(a); or

(2) 20 days after notice of such determination is given if a request for an adjudicatory hearing is filed in accordance with paragraph (a) of § 222.10 and the Administrator or the Regional Administrator, as the case may be, denies such request in accordance with paragraph (c) of § 222.10; or

(3) The date on which a final determination has been made following an adjudicatory hearing held pursuant to § 222.11.

(c) The Administrator or Regional Administrator, as the case may be, may extend the term of a previously issued permit pending the conclusion of the proceedings held pursuant to §§ 222.7 through 222.9.

(d) A copy of each permit issued shall be sent to the appropriate District Office of the U.S. Coast Guard.

§ 222.10 Appeal to adjudicatory hearing.

(a) Within 10 days following the receipt of notice of the issuance or denial of any permit pursuant to § 222.9 after a hearing held pursuant to § 222.7, any interested person who participated in such hearing may request that an adjudicatory hearing be held pursuant to § 222.11 for the purpose of reviewing such determination, or any part thereof. Any such request for an adjudicatory hearing shall be filed with the Administrator or the Regional Administrator, as the case may be, and shall be in writing, shall identify the person requesting the adjudicatory hearing and shall state with particularity the objections to the determination, the basis therefor and the modification requested.

(b) Whenever a written request satisfying the requirements of paragraph (a) of this section has been received and the Administrator or Regional Administrator, as the case may be, determines that an adjudicatory hearing is warranted, the Administrator or the Regional Administrator, as the case may be, will set a time and place for an adjudicatory hearing in accordance with § 222.5, and will give notice of such hearing by publication in accordance with § 222.3.

(c) Prior to the conclusion of the adjudicatory hearing and appeal process, the Administrator or the Regional Administrator, as the case may be, in his discretion may extend the duration of a previously issued permit until a final determination has been made pursuant to § 222.11 or § 222.12.

(d) In the event the Administrator or the Regional Administrator, as the case may be, determines that a request filed pursuant to paragraph (a) of this section does not comply with the requirements of such paragraph (a) of this section or that such request does not present substantial issues of public interest, he shall advise, in writing, the person requesting the adjudicatory hearing of his determination.

(e) Any person requesting an adjudicatory hearing or requesting admission as a party to an adjudicatory hearing shall state in his written request, and shall by filing such request consent, that he and his employees and agents shall submit themselves to direct and cross-examination at any such hearing and to the taking of an oath administered by the Presiding Officer.

§ 222.11 Conduct of adjudicatory hearings.

(a) *Parties.* Any interested person may at a reasonable time prior to the commencement of the hearing submit to the Presiding Officer a request to be admitted as a party. Such request shall be in writing and shall set forth the information which would be required to be submitted by such person if he were requesting an adjudicatory hearing. Any such request to be admitted as a party which satisfies the requirements of this paragraph (a) shall be granted and all parties shall be informed at the commencement of the adjudicatory hearing of the parties involved. Any party may be represented by counsel or other authorized representative. EPA staff representing the Administrator or Regional Administrator who took action with respect to the permit application shall be deemed a party.

(b) *Filing and service.* (1) An original and two (2) copies of all documents or papers required or permitted to be filed shall be filed with the Presiding Officer.

(2) Copies of all documents and papers filed with the Presiding Officer shall be served upon all other parties to the adjudicatory hearing.

(c) *Consolidation.* The Administrator, or the Regional Administrator in the case of a hearing arising within his Region and for which he has been delegated authority hereunder, may, in his discretion, order consolidation of any adjudicatory hearings held pursuant to this section whenever he determines that consolidation will expedite or simplify the consideration of the issues presented. The Administrator may, in his discretion, order consolidation and designate one Region to be responsible for the conduct of any hearings held pursuant to this section which arise in different Regions whenever he determines that consolidation will expedite or simplify the consideration of the issues presented.

(d) *Pre-hearing conference.* The Presiding Officer may hold one or more prehearing conferences and may issue a prehearing order which may include without limitation, requirements with respect to any or all of the following:

(1) Stipulations and admissions;

(2) Disputed issues of fact;

(3) Disputed issues of law;

(4) Admissibility of any evidence;

(5) Hearing procedures including submission of oral or written direct testimony, conduct of cross-examination, and the opportunity for oral arguments;

(6) Any other matter which may expedite the hearing or aid in disposition of any issues raised therein.

(e) *Adjudicatory hearing procedures.* (1) The burden of going forward with the evidence shall:

(i) In the case of any adjudicatory hearing held pursuant to § 222.10(b)(1), be on the person filing a request under § 222.10(a) as to each issue raised by the request; and

(ii) In the case of any adjudicatory hearing held pursuant to § 223.2 or pursuant to Part 226, be on the Environmental Protection Agency.

(2) The Presiding Officer shall have the duty to conduct a fair and impartial hearing, to take action to avoid unnecessary delay in the disposition of proceedings, and to maintain order. He shall have all powers necessary or appropriate to that end, including without limitation, the following:

(i) To administer oaths and affirmations;

(ii) To rule upon offers of proof and receive relevant evidence;

(iii) To regulate the course of the hearing and the conduct of the parties and their counsel;

(iv) To consider and rule upon all procedural and other motions appropriate to the proceedings; and

(v) To take any action authorized by these regulations and in conformance with law.

(3) Parties shall have the right to cross-examine a witness who appears at an adjudicatory hearing to the extent that such cross-examination is necessary or appropriate for a full disclosure of the facts. In multi-party proceedings the Presiding Officer may limit cross-examination to one party on each side if he is satisfied that the cross-examination by one party will adequately protect the interests of other parties.

(4) When a party will not be unfairly prejudiced thereby, the Presiding Officer may order all or part of the evidence to be submitted in written form.

(5) Rulings of the Presiding Officer on the admissibility of evidence, the propriety of cross-examination, and other procedural matters, shall be final and shall appear in the record.

(6) Interlocutory appeals may not be taken.

(7) Parties shall be presumed to have taken exception to an adverse ruling.

(8) The proceedings of all hearings shall be recorded by such means as the Presiding Officer may determine. The original transcript of the hearing shall be a part of the record and the sole official transcript. Copies of the transcript shall be available from the Environmental Protection Agency in accordance with 40 CFR Part 2.

(9) The rules of evidence shall not apply.

(f) *Decision after adjudicatory hearing.* (1) Within 30 days after the conclusion of the adjudicatory hearing, or within such additional period as the Administrator or the Regional Administrator, as the case may be, may grant to the Presiding Officer for good cause shown, the Presiding Officer shall submit to the Administrator or the Regional Administrator, as the case may be, proposed findings of fact and conclusions of law, his recommendation with respect to any and all issues raised at the hearing, and the record of the hearing. Such findings, conclusions and recommendations shall contain a brief statement of the basis for the recommendations. Copies of the Presiding Officer's proposed findings of fact, conclusions of law and recommendations shall be provided to all parties to the adjudicatory hearing on request, without charge.

(2) Within 20 days following submission of the Presiding Officer's proposed findings of fact, conclusions of law and recommendations, any party may submit written exceptions, no more than 30 pages in length, to such proposed findings, conclsions and recommendations and within 30 days following the submission of the Presiding Officer's proposed findings, conclu-

sions and recommendations any party may file written comments, no more than 30 pages in length, on another party's exceptions. Within 45 days following the submission of the Presiding Officer's proposed findings, conclusions and recommendations, the Administrator or the Regional Administrator, as the case may be, shall make a determination with respect to all issues raised at such hearing and shall affirm, reverse or modify the previous or proposed determination, as the case may be. Notice of such determination shall set forth the determination for each such issue, shall briefly state the basis therefor and shall be given by mail to all parties to the adjudicatory hearing.

§ 222.12 Appeal to Administrator.

(a) Within 10 days following receipt of the determination of the Regional Administrator pursuant to paragraph (f)(2) of § 222.11, any party to an adjudicatory hearing held in accordance with § 222.11 may appeal such determination to the Administrator by filing a written notice of appeal, or the Administrator may, on his own initiative, review any prior determination.

(b) The notice of appeal shall be no more than 40 pages in length and shall contain:

(1) The name and address of the person filing the notice of appeal;

(2) A concise statement of the facts on which the person relies and appropriate citations to the record of the adjudicatory hearing;

(3) A concise statement of the legal basis on which the person relies;

(4) A concise statement setting forth the action which the person proposes that the Administrator take; and

(5) A certificate of service of the notice of appeal on all other parties to the adjudicatory hearing.

(c) The effective date of any determination made pursuant to paragraph (f)(2) of § 222.11 may be stayed by the Administrator pending final determination by him pursuant to this section upon the filing of a notice of appeal which satisfies the requirements of paragraph (b) of this section or upon initiation by the Administrator of review of any determination in the absence of such notice of appeal.

(d) Within 20 days following the filing of a notice of appeal in accordance with this section, any party to the adjudicatory hearing may file a written memorandum, no more than 40 pages in length, in response thereto.

(e) Within 45 days following the filing of a notice of appeal in accordance with this section, the Administrator shall render his final determination with respect to all issues raised in the appeal to the Administrator and shall affirm, reverse, or modify the previous determination and briefly state the basis for his determination.

(f) In accordance with 5 U.S.C. section 704, the filing of an appeal to the Administrator pursuant to this section shall be a prerequisite to judicial review of any determination to issue, deny or impose conditions upon any permit, or to modify, revoke or suspend any permit, or to take any other enforcement action, under this Subchapter H.

§ 222.13 Computation of time.

In computing any period of time prescribed or allowed in this part, except unless otherwise provided, the day on which the designated period of time begins to run shall not be included. The last day of the period so computed is to be included unless it is a Saturday, Sunday, or a legal holiday in which the Environmental Protection Agency is not open for business, in which event the period runs until the end of the next day which is not a Saturday, Sunday, or legal holiday. Intermediate Saturdays, Sundays and legal holidays shall be excluded from the computation when the period of time prescribed or allowed is seven days or less.

PART 223—CONTENTS OF PERMITS; REVISION, REVOCATION OR LIMITATION OF OCEAN DUMPING PERMITS UNDER SECTION 104(d) OF THE ACT

Subpart A—Contents of Ocean Dumping Permits Issued Under Section 102 of the Act

Sec.
223.1 Contents of special, interim, emergency, general and research permits; posting requirements.

Subpart B—Procedures for Revision, Revocation or Limitation of Ocean Dumping Permits Under Section 104(d) of the Act

223.2 Scope of these rules.
223.3 Preliminary determination; notice.
223.4 Request for, scheduling and conduct of public hearing; determination.
223.5 Request for, scheduling and conduct of adjudicatory hearing; determination.

AUTHORITY: Secs. 102, 104, 107, 108, Marine Protection Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1412, 1414, 1417, 1418).

SOURCE: 42 FR 60702, Nov. 28, 1977, unless otherwise noted.

Subpart A—Contents of Ocean Dumping Permits Issued Under Section 102 of the Act

§ 223.1 Contents of special, interim, emergency, general and research permits; posting requirements.

(a) All special, interim, emergency and research permits shall be displayed on the vessel engaged in dumping and shall include the following:

(1) Name of permittee;

(2) Means of conveyance and methods and procedures for release of the materials to be dumped;

(3) The port through or from which such material will be transported for dumping;

(4) A description of relevant physical and chemical properties of the materials to be dumped;

(5) The quantity of the material to be dumped expressed in tons;

(6) The disposal site;

(7) The times at which the permitted dumping may occur and the effective date and expiration date of the permit;

(8) Special provisions which, after consultation with the Coast Guard, are deemed necessary for monitoring or surveillance of the transportation or dumping;

(9) Such monitoring relevant to the assessment of the impact of permitted dumping activities on the marine environment at the disposal site as the Administrator or Regional Administrator, as the case may be, determine to be necessary or appropriate; and

(10) Any other terms and conditions determined by the Administrator, or Regional Administrator, as the case may be, to be necessary or appropriate, including, without limitation, release procedures and requirements for the continued investigation or development of alternatives to ocean dumping.

(b) General permits shall contain such terms and conditions as the Administrator deems necessary or appropriate.

(c) Interim permits shall, in addition to the information required or permitted to be included in the permit pursuant to paragraph (a) of this section, include terms and conditions which satisfy the requirements of §§ 220.3(d) and 227.8.

Subpart B—Procedures for Revision, Revocation or Limitation of Ocean Dumping Permits Under Section 104(d) of the Act

§ 223.2 Scope of these rules.

(a) These rules of practice shall govern all proceedings under Section 104(d) of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1414(d)), to revise, revoke or limit the terms and conditions of any permit issued pursuant to section 102 of the Act. Section 104(d) provides that "the Administrator * * * may limit or deny the issuance of permits, or he may alter or revoke partially or entirely the terms of permits issued by him under this title, for the transportation for dumping, or for the dumping, or both of specified materials or classes of materials, where he finds that such materials cannot be dumped consistently with the criteria and other factors required to be applied in evaluating the permit application."

(b) In the absence of specific provisions in these rules, and where appropriate, questions arising at any stage of the proceedings shall be resolved at the discretion of the Presiding Officer, the Regional Administrator, or the Administrator, as appropriate.

§ 223.3 Preliminary determination; notice.

(a) *General.* Any general, special, emergency, interim or research permit issued pursuant to section 102 of the Act shall be subject to revision, revocation or limitation, in whole or in part, as the result of a determination by the Administrator or Regional Administrator that:

(1) The cumulative impact of the permittee's dumping activities or the aggregate impact of all dumping activities at the dump site designated in the permit should be categorized as Impact Category I, as defined in § 228.10(c)(1) of this subchapter; or

(2) There has been a change in circumstances relating to the management of the disposal site designated in the permit; or

(3) The dumping authorized by the permit would violate applicable water quality standards; or

(4) The dumping authorized by the permit can no longer be carried out consistent with the criteria set forth in Parts 227 and 228.

(b) *Preliminary determination.* Whenever any person authorized by the Administrator or Regional Administrator to (1) periodically review permits pursuant to section 104(d) of the Act or (2) otherwise assess the need for revision, revocation or limitation of a permit makes any of the determinations listed in paragraph (a) of this section with respect to a permit issued pursuant to section 102 of the Act, and additionally determines that revision, revocation or limitation of such permit is warranted, the Administrator or Regional Administrator, as the case may be, shall provide notification of such proposed revision, revocation or limitation to the permittee named in the permit, if any, the public, and any cognizant Federal/State agencies pursuant to paragraph (c) of this section.

(c) *Form of notification.* Notice of any proposed revision, revocation or limitation of a permit shall be sent to the permittee by certified mail, return receipt requested, and shall be published and otherwise disseminated in the manner described in § 222.3(b) through (h).

(d) *Contents of notice.* The notice of any proposed revision, revocation or limitation of a permit issued pursuant to paragraph (b) of this section shall include, in addition to any other materials, the following:

(1) A brief description of the contents of the permit, as set forth in § 223.1;

(2) A description of the proposed revision, revocation, or limitation;

(3) A statement of the reason for such proposed revision, revocation, or limitation; and

(4) A statement that within thirty (30) days of the date of dissemination of the notice, any person may request a public hearing on the proposed revision, revocation or limitation.

§ 223.4 Request for, scheduling and conduct of public hearing; determination.

(a) *Request for hearing.* Within thirty (30) days of the date of the dissemination of any notice required by § 223.2(b), any person may request the Administrator or Regional Administrator, as appropriate, to hold a public hearing on the proposed revision, revocation or limitation by submitting a written request containing the following:

(1) Identification of the person requesting the hearing and his interest in the proceeding;

(2) A statement of any objections to the proposed revision, revocation or limitation or to any facts or reasons identified as supporting such revision, revocation or limitation; and

(3) A statement of the issues which such person proposes to raise for consideration at such hearing.

(b) *Grant or denial of hearing; notification.* Whenever (1) a written request satisfying the requirements of paragraph (a) of this section has been received, and the Administrator or Regional Administrator, as appropriate, determines that such request presents genuine issues, or (2) the Administrator or Regional Administrator, as the case may be, determines in his discretion that a public hearing is necessary or appropriate, the Administrator or Regional Administrator, as the case may be, will set a time and place for a public hearing in accordance with paragraph (c) of this section and will give notice of such hearing by publication in accordance with § 223.3(c). In the event the Administrator or the Regional Administrator, as the case may be, determines that a request filed pursuant to paragraph (a) of this section does not comply with the requirements of paragraph (a) or that such request does not present genuine issues, he shall advise, in writing, the person requesting the hearing of his determination.

(c) *Time and place of hearing.* Any hearing authorized pursuant to this Section by the Administrator or Regional Administrator, as the case may be, shall be held in the city in which the Environmental Protection Agency Regional Office which issued the permit is located, whenever practicable, and shall be set for the earliest practicable date, but in no event less than thirty (30) days after the receipt of an appropriate request for a hearing or a determination by the Administrator or the Regional Administrator, as the case may be, to hold such a hearing without such a request.

(d) *Presiding Officer.* Any hearing convened pursuant to this part shall be conducted by a Presiding Officer, who shall be either a Regional Judicial Officer or a person having the qualifications of a Judicial Officer assigned by the Administrator or Regional Administrator, as appropriate. Such person shall be an attorney who is a permanent or temporary employee of the Agency, who is not employed by the Region's or Headquarter's Water Programs Division, Surveillance and Analysis Division, or Enforcement Division, and who has had no connection with the preparation or presentation of evidence for any hearing in which he participates as Judicial Officer.

(e) *Conduct of the public hearing.* The Presiding Officer shall be responsible for the expeditious conduct of the hearing. The hearing shall be an informal public hearing, not an adversary proceeding, and shall be conducted so as to allow the presentation of public comments. When the Presiding Officer determines that it is necessary or appropriate, he shall cause a suitable record, which may include a verbatim transcript, of the proceedings to be made. Any person may appear at a public hearing convened pursuant to this section whether or not he requested the hearing, and may be represented by counsel or any other authorized representative. The Presiding Officer is authorized to set forth reasonable restrictions on the nature or amount of documentary material or testimony presented at a public hearing, giving due regard to the relevancy of any such information, and to the avoidance of undue repetitiveness of information presented.

(f) *Recommendations of Presiding Officer.* Within 30 days following the adjournment of a public hearing convened pursuant to this section or within such additional period as the Administrator or the Regional Administrator, as the case may be, may grant to the Presiding Officer for good cause shown, and after full consideration of the comments received at the hearing, the Presiding Officer will prepare and forward to the Administrator or to the Regional Administrator, as the case may be, written recommendations relating to the revision, revocation or limitation of the permit and the record of the hearing, if any. Such recommendations shall contain a brief statement of the basis therefor, including a description of evidence relied upon (1) to support any finding made pursuant to § 223.3(a); (2) to justify any proposed revision, revocation or limitation of the permit; and (3) to justify any proposed revision, revocation or limitation which differs from that set forth in the notice issued pursuant to § 223.3(b). Copies of the Presiding Officer's recommendations shall be provided to any interested person on request, without charge. Copies of the record will be provided in accordance with 40 CFR Part 2.

(g) *Determination of the Administrator or Regional Administrator.* Upon receipt of the Presiding Officer's recommendations or, where no hearing has been held, upon termination of the thirty (30)-day period for requesting a hearing provided in paragraph (a) of this section, the Administrator or the Regional Administrator, as the case may be, shall make a determination with respect to the modification, revocation or suspension of the permit. Such determination shall include a description of the permit revision, revocation or limitation, the basis therefor, and the effective date. A copy of such determination shall be mailed to the permittee and each person who registered his attendance at the hearing by providing his name and mailing address.

§ 223.5 Request for, scheduling and conduct of adjudicatory hearing; determination.

Within ten (10) days following the receipt of the Administrator's or Regional Administrator's determination issued pursuant to § 223.4(g), any person who participated in the public hearing held pursuant to § 223.4 may request that an adjudicatory hearing be held for the purpose of reviewing such determination or any part thereof. Such request shall be submitted and disposed of, and any adjudicatory hearing convened shall be conducted in accordance with the procedures set forth in §§ 222.10(a), (b), (d), and (e) and 222.11.

PART 224—RECORDS AND REPORTS REQUIRED OF OCEAN DUMPING PERMITTEES UNDER SECTION 102 OF THE ACT

Sec.
224.1 Records of permittees.
224.2 Reports.

AUTHORITY: 33 U.S.C. 1412 and 1418.

§ 224.1 Records of permittees.

Each permittee named in a special, interim, emergency or research permit under section 102 of the Act and each person availing himself of the privilege conferred by a general permit, shall maintain complete records of the following information, which will be available for inspection by the Administrator, Regional Administrator, the Commandant of the U.S. Coast Guard, or their respective designees:

(a) The physical and chemical characteristics of the material dumped pursuant to the permit;

(b) The precise times and locations of dumping;

(c) Any other information required as a condition of a permit by the Administrator or the Regional Administrator, as the case may be.

[42 FR 2474, Jan. 11, 1977]

§ 224.2 Reports.

(a) *Periodic reports.* Information required to be recorded pursuant to § 224.1 shall be reported to the Administrator or the Regional Administrator, as the case may be, for the periods indicated within 30 days of the expiration of such periods:

(1) For each six-month period, if any, following the effective date of the permit;

(2) For any other period of less than six months ending on the expiration date of the permit; and

(3) As otherwise required in the conditions of the permit.

(b) *Reports of emergency dumping.* If material is dumped without a permit pursuant to paragraph (c)(4) of § 220.1, the owner or operator of the vessel or aircraft from which such dumping occurs shall as soon as feasible inform the Administrator, Regional Administrator, or the nearest Coast Guard district of the incident by radio, telephone, or telegraph and shall within 10 days file a written report with the Administrator or Regional Administrator containing the information required under § 224.1 and a complete description of the circumstances under which the dumping occurred. Such description shall explain how human life at sea was in danger and how the emergency dumping reduced that danger. If the material dumped included containers, the vessel owner or operator shall immediately request the U.S. Coast Guard to publish in the local Notice to Mariners the dumping location, the type of containers, and whether the contents are toxic or explosive. Notification shall also be given to the Food and Drug Administration.

Shellfish Sanitation Branch, Washington, DC 20204, as soon as possible.

[42 FR 2474, Jan. 11, 1977]

PART 225—CORPS OF ENGINEERS DREDGED MATERIAL PERMITS

Sec.
225.1 General.
225.2 Review of Dredged Material Permits.
225.3 Procedure for invoking economic impact.
225.4 Waiver by Administrator.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2475, Jan. 11, 1977, unless otherwise noted.

§ 225.1 General.

Applications and authorizations for Dredged Material Permits under section 103 of the Act for the transportation of dredged material for the purpose of dumping it in ocean waters will be evaluated by the U.S. Army Corps of Engineers in accordance with the criteria set forth in Part 227 and processed in accordance with 33 CFR 209.120 with special attention to § 209.120(g)(17) and 33 CFR 209.145.

§ 225.2 Review of Dredged Material Permits.

(a) The District Engineer shall send a copy of the public notice to the appropriate Regional Administrator, and set forth in writing all of the following information:

(1) The location of the proposed disposal site and its physical boundaries;

(2) A statement as to whether the site has been designated for use by the Administrator pursuant to section 102(c) of the Act;

(3) If the proposed disposal site has not been designated by the Administrator, a statement of the basis for the proposed determination why no previously designated site is feasible and a description of the characteristics of the proposed disposal site necessary for its designation pursuant to Part 228 of this Subchapter H;

(4) The known historical uses of the proposed disposal site;

(5) Existence and documented effects of other authorized dumpings that have been made in the dumping area (e.g., heavy metal background reading and organic carbon content);

(6) An estimate of the length of time during which disposal will continue at the proposed site;

(7) Characteristics and composition of the dredged material; and

(8) A statement concerning a preliminary determination of the need for and/or availability of an environmental impact statement.

(b) The Regional Administrator will within 15 days of the date the public notice and other information required to be submitted by paragraph (a) of § 225.2 are received by him, review the information submitted and request from the District Engineer any additional information he deems necessary or appropriate to evaluate the proposed dumping.

(c) Using the information submitted by the District Engineer, and any other information available to him, the Regional Administrator will within 15 days after receipt of all requested information, make an independent evaluation of the proposed dumping in accordance with the criteria and respond to the District Engineer pursuant to paragraph (d) or (e) of this section. The Regional Administrator may request an extension of this 15 day period to 30 days from the District Engineer.

(d) When the Regional Administrator determines that the proposed dumping will comply with the criteria, he will so inform the District Engineer in writing.

(e) When the Regional Administrator determines that the proposed dumping will not comply with the criteria he shall so inform the District Engineer in writing. In such cases, no Dredged Material Permit for such dumping shall be issued unless and until the provisions of § 225.3 are followed and the Administrator grants a waiver of the criteria pursuant to § 225.4.

§ 225.3 Procedure for invoking economic impact.

(a) When a District Engineer's determination to issue a Dredged Material Permit for the dumping of dredged material into ocean waters has been rejected by a Regional Administrator upon application of the Criteria, the District Engineer may determine whether, under section 103(d) of the Act, there is an economically feasible alternative method or site available other than the proposed dumping in ocean waters. If the District Engineer makes any such preliminary determination that there is no economically feasible alternative method or site available, he shall so advise the Regional Administrator setting forth his reasons for such determination and shall submit a report of such determination to the Chief of Engineers in accordance with 33 CFR 209.120 and 209.145.

(b) If the decision of the Chief of Engineers is that ocean dumping at the designated site is required because of the unavailability of feasible alternatives, he shall so certify and request that the Secretary of the Army seek a waiver from the Administrator of the Criteria or of the critical site designation in accordance with § 225.4.

§ 225.4 Waiver by Administrator.

The Administrator shall grant the requested waiver unless within 30 days of his receipt of the notice, certificate and request in accordance with paragraph (b) of § 225.3 he determines in accordance with this section that the proposed dumping will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Notice of the Administrator's final determination under this section shall be given to the Secretary of the Army.

PART 227—CRITERIA FOR THE EVALUATION OF PERMIT APPLICATIONS FOR OCEAN DUMPING OF MATERIALS

Subpart A—General

Sec.
227.1 Applicability.
227.2 Materials which satisfy the environmental impact criteria of Subpart B.
227.3 Materials which do not satisfy the environmental impact criteria set forth in Subpart B.

Subpart B—Environmental Impact

227.4 Criteria for evaluating environmental impact.
227.5 Prohibited materials.
227.6 Constituents prohibited as other than trace contaminants.
227.7 Limits established for specific wastes or waste constituents.
227.8 Limitations on the disposal rates of toxic wastes.
227.9 Limitations on quantities of waste materials.
227.10 Hazards to fishing, navigation, shorelines or beaches.
227.11 Containerized wastes.
227.12 Insoluble wastes.
227.13 Dredged materials.

Subpart C—Need for Ocean Dumping

227.14 Criteria for evaluating the need for ocean dumping and alternatives to ocean dumping.
227.15 Factors considered.
227.16 Basis for determination of need for ocean dumping.

Subpart D—Impact of the Proposed Dumping on Esthetic, Recreational and Economic Values

227.17 Basis for determination.
227.18 Factors considered.
227.19 Assessment of impact.

Subpart E—Impact of the Proposed Dumping on Other Uses of the Ocean

227.20 Basis for determination.
227.21 Uses considered.
227.22 Assessment of impact.

Subpart F—Special Requirements for Interim Permits Under Section 102 of the Act

227.23 General requirement.
227.24 Contents of environmental assessment.
227.25 Contents of plans.
227.26 Implementation of plans.

Subpart G—Definitions

227.27 Limiting permissible concentration (LPC).
227.28 Release zone.
227.29 Initial mixing.
227.30 High-level radioactive waste.
227.31 Applicable marine water quality criteria.

Sec.
227.32 Liquid, suspended particulate, and solid phases of a material.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2476, Jan. 11, 1977, unless otherwise noted.

Subpart A—General

§ 227.1 Applicability.

(a) Section 102 of the Act requires that criteria for the issuance of ocean disposal permits be promulgated after consideration of the environmental effect of the proposed dumping operation, the need for ocean dumping, alternatives to ocean dumping, and the effect of the proposed action on esthetic, recreational and economic values and on other uses of the ocean. This Parts 227 and 228 of this Subchapter H together constitute the criteria established pursuant to section 102 of the Act. The decision of the Administrator, Regional Administrator or the District Engineer, as the case may be, to issue or deny a permit and to impose specific conditions on any permit issued will be based on an evaluation of the permit application pursuant to the criteria set forth in this Part 227 and upon the requirements for disposal site management pursuant to the criteria set forth in Part 228 of this Subchapter H.

(b) With respect to the criteria to be used in evaluating disposal of dredged materials, this section and Subparts C, D, E, and G apply in their entirety. To determine whether the proposed dumping of dredged material complies with Subpart B, only §§ 227.4, 227.5, 227.6, 227.9, 227.10 and 227.13 apply. An applicant for a permit to dump dredged material must comply with all of Subparts C, D, E, G and applicable sections of B, to be deemed to have met the EPA criteria for dredged material dumping promulgated pursuant to section 102(a) of the Act. If, in any case, the Chief of Engineers finds that, in the disposition of dredged material, there is no economically feasible method or site available other than a dumping site, the utilization of which would result in noncompliance with the criteria established pursuant to Subpart B relating to the effects of dumping or with the restrictions established pursuant to section 102(c) of the Act relating to critical areas, he shall so certify and request that the Secretary of the Army seek a waiver from the Administrator pursuant to Part 225.

(c) The Criteria of this Part 227 are established pursuant to section 102 of the Act and apply to the evaluation of proposed dumping of materials under Title I of the Act. The Criteria of this Part 227 deal with the evaluation of proposed dumping of materials on a case-by-case basis from information supplied by the applicant or otherwise available to EPA or the Corps of Engineers concerning the characteristics of the waste and other considerations relating to the proposed dumping.

(d) After consideration of the provisions of §§ 227.28 and 227.29, no permit will be issued when the dumping would result in a violation of applicable water quality standards.

§ 227.2 Materials which satisfy the environmental impact criteria of Subpart B.

(a) If the applicant satisfactorily demonstrates that the material proposed for ocean dumping satisfies the environmental impact criteria set forth in Subpart B, a permit for ocean dumping will be issued unless:

(1) There is no need for the dumping, and alternative means of disposal are available, as determined in accordance with the criteria set forth in Subpart C; or

(2) There are unacceptable adverse effects on esthetic, recreational or economic values as determined in accordance with the criteria set forth in Subpart D; or

(3) There are unacceptable adverse effects on other uses of the ocean as determined in accordance with the criteria set forth in Subpart E.

(b) If the material proposed for ocean dumping satisfies the environmental impact criteria set forth in Subpart B, but the Administrator or the Regional Administrator, as the case may be, determines that any one of the considerations set forth in paragraph (a)(1), (2) or (3) of this section applies, he will deny the permit application; provided however, that he may issue an interim permit for ocean dumping pursuant to paragraph (d) of § 220.3 and Subpart F of this Part 227 when he determines that:

(1) The material proposed for ocean dumping does not contain any of the materials listed in § 227.5 or listed in § 227.6, except as trace contaminants; and

(2) In accordance with Subpart C there is a need to ocean dump the material and no alternatives are available to such dumping; and

(3) The need for the dumping and the unavailability of alternatives, as determined in accordance with Subpart C, are of greater significance to the public interest than the potential for adverse effect on esthetic, recreational or economic values, or on other uses of the ocean, as determined in accordance with Subparts D and E, respectively.

§ 227.3 Materials which do not satisfy the environmental impact criteria set forth in Subpart B.

If the material proposed for ocean dumping does not satisfy the environmental impact criteria of Subpart B, the Administrator or the Regional Administrator, as the case may be, will deny the permit application; provided however, that he may issue an interim permit pursuant to paragraph (d) of § 220.3 and Subpart F of this Part 227 when he determines that:

(a) The material proposed for dumping does not contain any of the materials listed in § 227.6 except as trace contaminants, or any of the materials listed in § 227.5;

(b) In accordance with Subpart C there is a need to ocean dump the material; and

(c) Any one of the following factors is of greater significance to the public interest than the potential for adverse impact on the marine environment, as determined in accordance with Subpart B:

(1) The need for the dumping, as determined in accordance with Subpart C; or

(2) The adverse effects of denial of the permit on recreational or economic values as determined in accordance with Subpart D; or

(3) The adverse effects of denial of the permit on other uses of the ocean, as determined in accordance with Subpart E.

Subpart B—Environmental Impact

§ 227.4 Criteria for evaluating environmental impact.

This Subpart B sets specific environmental impact prohibitions, limits, and conditions for the dumping of materials into ocean waters. If the applicable prohibitions, limits, and conditions are satisfied, it is the determination of EPA that the proposed disposal will not unduly degrade or endanger the marine environment and that the disposal will present:

(a) No unacceptable adverse effects on human health and no significant damage to the resources of the marine environment;

(b) No unacceptable adverse effect on the marine ecosystem;

(c) No unacceptable adverse persistent or permanent effects due to the dumping of the particular volumes or concentrations of these materials; and

(d) No unacceptable adverse effect on the ocean for other uses as a result of direct environmental impact.

§ 227.5 Prohibited materials.

The ocean dumping of the following materials will not be approved by EPA or the Corps of Engineers under any circumstances:

(a) High-level radioactive wastes as defined in § 227.30;

(b) Materials in whatever form (including without limitation, solids, liquids, semi-liquids, gases or organisms) produced or used for radiological, chemical or biological warfare;

(c) Materials insufficiently described by the applicant in terms of their compositions and properties to permit application of the environmental impact criteria of this Subpart B;

(d) Persistent inert synthetic or natural materials which may float or remain in suspension in the ocean in such a manner that they may interfere materially with fishing, navigation, or other legitimate uses of the ocean.

§ 227.6 Constituents prohibited as other than trace contaminants.

(a) Subject to the exclusions of paragraphs (f), (g) and (h) of this section, the ocean dumping, or transportation for dumping, of materials containing the following constituents as other than trace contaminants will not be approved on other than an emergency basis:

(1) Organohalogen compounds;

(2) Mercury and mercury compounds;

(3) Cadmium and cadmium compounds;

(4) Oil of any kind or in any form, including but not limited to petroleum, oil sludge, oil refuse, crude oil, fuel oil, heavy diesel oil, lubricating oils, hydraulic fluids, and any mixtures containing these, transported for the purpose of dumping insofar as these are not regulated under the FWPCA;

(5) Known carcinogens, mutagens, or teratogens or materials suspected to be carcinogens, mutagens, or teratogens by responsible scientific opinion.

(b) These constituents will be considered to be present as trace contaminants only when they are present in materials otherwise acceptable for ocean dumping in such forms and amounts in liquid, suspended particulate, and solid phases that the dumping of the materials will not cause significant undesirable effects, including the possibility of danger associated with their bioaccumulation in marine organisms.

(c) The potential for significant undesirable effects due to the presence of these constituents shall be determined by application of results of bioassays on liquid, suspended particulate, and solid phases of wastes according to procedures acceptable to EPA, and for dredged material, acceptable to EPA and the Corps of Engineers. Materials shall be deemed environmentally acceptable for ocean dumping only when the following conditions are met:

(1) The liquid phase does not contain any of these constituents in concentrations which will exceed applicable marine water quality criteria after allowance for initial mixing; provided that mercury concentrations in the disposal site, after allowance for initial mixing, may exceed the average normal ambient concentrations of mercury in ocean waters at or near the dumping site which would be present in the absence of dumping, by not more than 50 percent; and

(2) Bioassay results on the suspended particulate phase of the waste do not indicate occurrence of significant mortality or significant adverse sublethal effects including bioaccumulation due to the dumping of wastes containing the constituents listed in paragraph (a) of this section. These bioassays shall be conducted with appropriate sensitive marine organisms as defined in § 227.27(c) using procedures for suspended particulate phase bioassays approved by EPA, or, for dredged material, approved by EPA and the Corps of Engineers. Procedures approved for bioassays under this section will require exposure of organisms for a sufficient period of time and under appropriate conditions to provide reasonable assurance, based on consideration of the statistical significance of effects at the 95 percent confidence level, that, when the materials are dumped, no significant undesirable effects will occur due either to chronic toxicity or to bioaccumulation of the constituents listed in paragraph (a) of this section; and

(3) Bioassay results on the solid phase of the wastes do not indicate occurrence of significant mortality or significant adverse sublethal effects due to the dumping of wastes containing the constituents listed in paragraph (a) of this section. These bioassays shall be conducted with appropriate sensitive benthic marine organisms using benthic bioassay procedures approved by EPA, or, for dredged material, approved by EPA and the Corps of Engineers. Procedures approved for bioassays under this section will require exposure of organisms for a sufficient period of time to provide reasonable assurance, based on considerations of statistical significance of effects at the 95 percent confidence level, that, when the materials are dumped, no significant undesirable effects will occur due either to chronic toxicity or to bioaccumulation of the

constituents listed in paragraph (a) of this section; and

(4) For persistent organohalogens not included in the applicable marine water quality criteria, bioassay results on the liquid phase of the waste show that such compounds are not present in concentrations large enough to cause significant undesirable effects due either to chronic toxicity or to bioaccumulation in marine organisms after allowance for initial mixing.

(d) When the Administrator, Regional Administrator or District Engineer, as the case may be, has reasonable cause to believe that a material proposed for ocean dumping contains compounds identified as carcinogens, mutagens, or teratogens for which criteria have not been included in the applicable marine water quality criteria, he may require special studies to be done prior to issuance of a permit to determine the impact of disposal on human health and/or marine ecosystems. Such studies must provide information comparable to that required under paragraph (c)(3) of this section.

(e) The criteria stated in paragraphs (c)(2) and (3) of this section will become mandatory as soon as announcement of the availability of acceptable procedures is made in the FEDERAL REGISTER. At that time the interim criteria contained in paragraph (e) of this section shall no longer be applicable. As interim measures the criteria of paragraphs (c)(2) and (3) of this section may be applied on a case-by-case basis where interim guidance on acceptable bioassay procedures is provided by the Regional Administrator or, in the case of dredged material, by the District Engineer; or, in the absence of such guidance, permits may be issued for the dumping of any material only when the following conditions are met, except under an emergency permit:

(1) Mercury and its compounds are present in any solid phase of a material in concentrations less than 0.75 mg/kg, or less than 50 percent greater than the average total mercury content of natural sediments of similar lithologic characteristics as those at the disposal site; and

(2) Cadmium and its compounds are present in any solid phase of a material in concentrations less than 0.6 mg/kg, or less than 50 percent greater than the average total cadmium content of natural sediments of similar lithologic characteristics as those at the disposal site; and

(3) The total concentration of organohalogen constituents in the waste as transported for dumping is less than a concentration of such constituents known to be toxic to marine organisms. In calculating the concentration of organohalogens, the applicant shall consider that these constituents are all biologically available. The determination of the toxicity value will be based on existing scientific data or developed by the use of bioassays conducted in accordance with approved EPA procedures; and

(4) The total amounts of oils and greases as identified in paragraph (a)(4) of this section do not produce a visible surface sheen in an undisturbed water sample when added at a ratio of one part waste material to 100 parts of water.

(f) The prohibitions and limitations of this section do not apply to the constituents identified in paragraph (a) of this section when the applicant can demonstrate that such constituents are (1) present in the material only as chemical compounds or forms (e.g., inert insoluble solid materials) non-toxic to marine life and non-bioaccumulative in the marine environment upon disposal and thereafter, or (2) present in the material only as chemical compounds or forms which, at the time of dumping and thereafter, will be rapidly rendered non-toxic to marine life and non-bioaccumulative in the marine environment by chemical or biological degradation in the sea; provided they will not make edible marine organisms unpalatable; or will not endanger human health or that of domestic animals, fish, shellfish, or wildlife.

(g) The prohibitions and limitations of this section do not apply to the constituents identified in paragraph (a) of this section for the granting of research permits if the substances are rapidly rendered harmless by physical, chemical or biological processes in the sea; provided they will not make edible marine organisms unpalatable and will not endanger human health or that of domestic animals.

(h) The prohibitions and limitations of this section do not apply to the constituents identified in paragraph (a) of this section for the granting of permits for the transport of these substances for the purpose of incineration at sea if the applicant can demonstrate that the stack emissions consist of substances which are rapidly rendered harmless by physical, chemical or biological processes in the sea. Incinerator operations shall comply with requirements which will be established on a case-by-case basis.

[42 FR 2476, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978]

§ 227.7 Limits established for specific wastes or waste constituents.

Materials containing the following constituents must meet the additional limitations specified in this section to be deemed acceptable for ocean dumping:

(a) Liquid waste constituents immiscible with or slightly soluble in seawater, such as benzene, xylene, carbon disulfide and toluene, may be dumped only when they are present in the waste in concentrations below their solubility limits in seawater. This provision does not apply to materials which may interact with ocean water to form insoluble materials;

(b) Radioactive materials, other than those prohibited by § 227.5, must be contained in accordance with the provisions of § 227.11 to prevent their direct dispersion or dilution in ocean waters;

(c) Wastes containing living organisms may not be dumped if the organisms present would endanger human health or that of domestic animals, fish, shellfish and wildlife by:

(1) Extending the range of biological pests, viruses, pathogenic microorganisms or other agents capable of infesting, infecting or extensively and permanently altering the normal populations of organisms;

(2) Degrading uninfected areas; or

(3) Introducing viable species not indigenous to an area.

(d) In the dumping of wastes of highly acidic or alkaline nature into the ocean, consideration shall be given to:

(1) The effects of any change in acidity or alkalinity of the water at the disposal site; and

(2) The potential for synergistic effects or for the formation of toxic compounds at or near the disposal site. Allowance may be made in the permit conditions for the capability of ocean waters to neutralize acid or alkaline wastes; provided, however, that dumping conditions must be such that the average total alkalinity or total acidity of the ocean water after allowance for initial mixing, as defined in § 227.29, may be changed, based on stoichiometric calculations, by no more than 10 percent during all dumping operations at a site to neutralize acid or alkaline wastes.

(e) Wastes containing biodegradable constituents, or constituents which consume oxygen in any fashion, may be dumped in the ocean only under conditions in which the dissolved oxygen after allowance for initial mixing, as defined in § 227.29, will not be depressed by more than 25 percent below the normally anticipated ambient conditions in the disposal area at the time of dumping.

§ 227.8 Limitations on the disposal rates of toxic wastes.

No wastes will be deemed acceptable for ocean dumping unless such wastes can be dumped so as not to exceed the limiting permissible concentration as defined in § 227.27; *Provided,* That this § 227.8 does not apply to those wastes for which specific criteria are established in § 227.11 or § 227.12. Total quantities of wastes dumped at a site may be limited as described in § 228.8.

§ 227.9 Limitations on quantities of waste materials.

Substances which may damage the ocean environment due to the quantities in which they are dumped, or which may seriously reduce amenities, may be dumped only when the quantities to be dumped at a single time and place are controlled to prevent long-term damage to the environment or to amenities.

§ 227.10 Hazards to fishing, navigation, shorelines or beaches.

(a) Wastes which may present a serious obstacle to fishing or navigation may be dumped only at disposal sites and under conditions which will insure no unacceptable interference with fishing or navigation.

(b) Wastes which may present a hazard to shorelines or beaches may be dumped only at sites and under conditions which will insure no unacceptable danger to shorelines or beaches.

§ 227.11 Containerized wastes.

(a) Wastes containerized solely for transport to the dumping site and expected to rupture or leak on impact or shortly thereafter must meet the appropriate requirements of §§ 227.6, 227.7, 227.8, 227.9, and 227.10.

(b) Other containerized wastes will be approved for dumping only under the following conditions:

(1) The materials to be disposed of decay, decompose or radiodecay to environmentally innocuous materials within the life expectancy of the containers and/or their inert matrix; and

(2) Materials to be dumped are present in such quantities and are of such nature that only short-term localized adverse effects will occur should the containers rupture at any time; and

(3) Containers are dumped at depths and locations where they will cause no threat to navigation, fishing, shorelines, or beaches.

§ 227.12 Insoluble wastes.

(a) Solid wastes consisting of inert natural minerals or materials compatible with the ocean environment may be generally approved for ocean dumping provided they are insoluble above the applicable trace or limiting permissible concentrations and are rapidly and completely settleable, and they are of a particle size and density that they would be deposited or rapidly dispersed without damage to benthic, demersal, or pelagic biota.

(b) Persistent inert synthetic or natural materials which may float or remain in suspension in the ocean as prohibited in paragraph (d) of § 227.5 may be dumped in the ocean only when they have been processed in such a fashion that they will sink to the bottom and remain in place.

§ 227.13 Dredged materials.

(a) Dredged materials are bottom sediments or materials that have been dredged or excavated from the navigable waters of the United States, and their disposal into ocean waters is regulated by the U.S. Army Corps of Engineers using the criteria of applicable sections of Parts 227 and 228. Dredged material consists primarily of natural sediments or materials which may be contaminated by municipal or industrial wastes or by runoff from terrestrial sources such as agricultural lands.

(b) Dredged material which meets the criteria set forth in the following paragraphs (b)(1), (2), or (3) of this section is environmentally acceptable for ocean dumping without further testing under this section:

(1) Dredged material is composed predominantly of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels; or

(2) Dredged material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on the receiving beaches; or

(3) *When:* (i) The material proposed for dumping is substantially the same as the substrate at the proposed disposal site; and

(ii) The site from which the material proposed for dumping is to be taken is far removed from known existing and historical sources of pollution so as to provide reasonable assurance that such material has not been contaminated by such pollution.

(c) When dredged material proposed for ocean dumping does not meet the criteria of paragraph (b) of this section, further testing of the liquid, suspended particulate, and solid phases, as defined in § 227.32, is required. Based on the results of such testing, dredged material can be considered to be environmentally acceptable for ocean dumping only under the following conditions:

(1) The material is in compliance with the requirements of § 227.6; and

(2)(i) All major constituents of the liquid phase are in compliance with the applicable marine water quality criteria after allowance for initial mixing; or

(ii) When the liquid phase contains major constituents not included in the applicable marine water quality criteria, or there is reason to suspect synergistic effects of certain contaminants, bioassays on the liquid phase of the dredged material show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (a) of § 227.27; and

(3) Bioassays on the suspended particulate and solid phases show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (b) of § 227.27.

(d) For the purposes of paragraph (c)(2) of this section, major constituents to be analyzed in the liquid phase are those deemed critical by the District Engineer, after evaluating and considering any comments received from the Regional Administrator, and considering known sources of discharges in the area.

Subpart C—Need for Ocean Dumping

§ 227.14 Criteria for evaluating the need for ocean dumping and alternatives to ocean dumping.

This Subpart C states the basis on which an evaluation will be made of the need for ocean dumping, and alternatives to ocean dumping. The nature of these factors does not permit the promulgation of specific quantitative criteria of each permit application. These factors will therefore be evaluated if applicable for each proposed dumping on an individual basis using the guidelines specified in this Subpart C.

§ 227.15 Factors considered.

The need for dumping will be determined by evaluation of the following factors:

(a) Degree of treatment useful and feasible for the waste to be dumped, and whether or not the waste material has been or will be treated to this degree before dumping;

(b) Raw materials and manufacturing or other processes resulting in the waste, and whether or not these materials or processes are essential to the provision of the applicant's goods or services, or if other less polluting materials or processes could be used;

(c) The relative environmental risks, impact and cost for ocean dumping as opposed to other feasible alternatives including but not limited to:

(1) Land fill;

(2) Well injection;

(3) Incineration;

(4) Spread of material over open ground;

(5) Recycling of material for reuse;

(6) Additional biological, chemical, or physical treatment of intermediate or final waste streams;

(7) Storage.

(d) Irreversible or irretrievable consequences of the use of alternatives to ocean dumping.

§ 227.16 Basis for determination of need for ocean dumping.

(a) A need for ocean dumping will be considered to have been demonstrated when a thorough evaluation of the factors listed in § 227.15 has been made, and the Administrator, Regional Administrator or District Engineer, as the case may be, has determined that the following conditions exist where applicable:

(1) There are no practicable improvements which can be made in process technology or in overall waste treatment to reduce the adverse impacts of the waste on the total environment;

(2) There are no practicable alternative locations and methods of disposal or recycling available, including without limitation, storage until treatment facilities are completed, which have less adverse environmental impact or potential risk to other parts of the environment than ocean dumping.

(b) For purposes of paragraph (a) of this section, waste treatment or improvements in processes and alternative methods of disposal are practicable when they are available at reasonable incremental cost and energy expenditures, which need not be competitive with the costs of ocean dumping, taking into account the environmental benefits derived from such activity, including the relative adverse environmental impacts associated with the use of alternatives to ocean dumping.

(c) The duration of permits issued under Subchapter H and other terms and conditions imposed in those permits shall be determined after taking into account the factors set forth in this section. Notwithstanding compliance with Subparts B, D, and E of this Part 227 permittees may, on the basis of the need for and alternatives to ocean dumping, be required to terminate all ocean dumping by a specified date, to phase out all ocean dumping over a specified period or periods, to continue research and development of alternative methods of disposal and make periodic reports of such research and development in order to provide additional information for periodic review of the need for and alternatives to ocean dumping, or to take such other action as the Administrator, the Regional Administrator, or District Engineer, as the case may be, determines to be necessary or appropriate.

Subpart D—Impact of the Proposed Dumping on Esthetic, Recreational and Economic Values

§ 227.17 Basis for determination.

(a) The impact of dumping on esthetic, recreational and economic values will be evaluated on an individual basis using the following considerations:

(1) Potential for affecting recreational use and values of ocean waters, inshore waters, beaches, or shorelines;

(2) Potential for affecting the recreational and commercial values of living marine resources.

(b) For all proposed dumping, full consideration will be given to such nonquantifiable aspects of esthetic, recreational and economic impact as:

(1) Responsible public concern for the consequences of the proposed dumping;

(2) Consequences of not authorizing the dumping including without limitation, the impact on esthetic, recreational and economic values with respect to the municipalities and industries involved.

§ 227.18 Factors considered.

The assessment of the potential for impacts on esthetic, recreational and economic values will be based on an evaluation of the appropriate characteristics of the material to be dumped, allowing for conservative rates of dilution, dispersion, and biochemical degradation during movement of the materials from a disposal site to an area of significant recreational or commercial value. The following specific factors will be considered in making such an assessment:

(a) Nature and extent of present and potential recreational and commercial use of areas which might be affected by the proposed dumping;

(b) Existing water quality, and nature and extent of disposal activities, in the areas which might be affected by the proposed dumping;

(c) Applicable water quality standards;

(d) Visible characteristics of the materials (e.g., color, suspended particulates) which result in an unacceptable estetic nuisance in recreational areas;

(e) Presence in the material of pathogenic organisms which may cause a public health hazard either directly or through contamination of fisheries or shellfisheries;

(f) Presence in the material of toxic chemical constituents released in volumes which may affect humans directly;

(g) Presence in the material of chemical constituents which may be bioaccumulated or persistent and may have an adverse effect on humans directly or through food chain interactions;

(h) Presence in the material of any constituents which might significantly affect living marine resources of recreational or commercial value.

§ 227.19 Assessment of impact.

An overall assessment of the proposed dumping and possible alternative methods of disposal or recycling will be made based on the effect on esthetic, recreational and economic values based on the factors set forth in this Subpart D, including where applicable, enhancement of these values, and the results of the assessment will be expressed, where possible, on a quantitative basis, such as percentage of a resource lost, reduction in use days of recreational areas, or dollars lost in commercial fishery profits or the profitability of other commercial enterprises.

Subpart E—Impact of the Proposed Dumping on Other Uses of the Ocean

§ 227.20 Basis for determination.

(a) Based on current state of the art, consideration must be given to any possible long-range effects of even the most innocuous substances when dumped in the ocean on a continuing basis. Such a consideration is made in evaluating the relationship of each proposed disposal activity in relationship to its potential for long-range impact on other uses of the ocean.

(b) An evaluation will be made on an individual basis for each proposed dumping of material of the potential for effects on uses of the ocean for purposes other than material disposal. The factors to be considered in this evaluation include those stated in Subpart D, but the evaluation of this Subpart E will be based on the impact of the proposed dumping on specific uses of the ocean rather than on overall esthetic, recreational and economic values.

§ 227.21 Uses considered.

An appraisal will be made of the nature and extent of existing and potential uses of the disposal site itself and of any areas which might reasonably be expected to be affected by the proposed dumping, and a quantitative and qualitative evaluation made, where feasible, of the impact of the proposed dumping on each use. The uses considered shall include, but not be limited to:

(a) Commercial fishing in open ocean areas;

(b) Commercial fishing in coastal areas;

(c) Commercial fishing in estuarine areas;

(d) Recreational fishing in open ocean areas;

(e) Recreational fishing in coastal areas;

(f) Recreational fishing in estuarine areas;

(g) Recreational use of shorelines and beaches;

(h) Commercial navigation;

(i) Recreational navigation;

(j) Actual or anticipated exploitation of living marine resources;

(k) Actual or anticipated exploitation of non-living resources, including without limitation, sand and gravel places and other mineral deposits, oil and gas exploration and development and offshore marine terminal or other structure development; and

(l) Scientific research and study.

§ 227.22 Assessment of impact.

The assessment of impact on other uses of the ocean will consider both temporary and long-range effects within the state of the art, but particular emphasis will be placed on any irreversible or irretrievable commitment of resources that would result from the proposed dumping.

Subpart F—Special Requirements for Interim Permits Under Section 102 of the Act

§ 227.23 General requirement.

Each interim permit issued under section 102 of the Act will include a requirement for the development and implementation, as soon as practicable, of a plan which requires, at the discretion of the Administrator or Regional Administrator, as the case may be, either:

(a) Elimination of ocean disposal of the waste, or

(b) Bringing the waste into compliance with all the criteria for acceptable ocean disposal.

§ 227.24 Contents of environmental assessment.

A plan developed pursuant to this Subpart F must include an environmental assessment of the proposed action, including without limitation:

(a) Description of the proposed action;

(b) A thorough review of the actual need for dumping;

(c) Environmental impact of the proposed action;

(d) Adverse impacts which cannot be avoided should the proposal be implemented;

(e) Alternatives to the proposed action;

(f) Relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity;

(g) Irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented; and

(h) A discussion of problems and objections raised by other Federal. State and local agencies and by interested persons in the review process.

§ 227.25 Contents of plans.

In addition to the environmental assessment required by § 227.24, a plan developed pursuant to this Subpart F must include a schedule for eliminating ocean dumping or bringing the wastes into compliance with the environmental impact criteria of Subpart B, including without limitation, the following:

(a) If the waste is treated to the degree necessary to bring it into compliance with the ocean dumping criteria, the applicant should provide a description of the treatment and a scheduled program for treatment and a subsequent analysis of treated material to prove the effectiveness of the process.

(b) If treatment cannot be effected by post-process techniques the applicant should, determining the offending constituents, examine his raw materials and his total process to determine the origin of the pollutant. If the offending constituents are found in the raw material the applicant should consider a new supplier and provide an analysis of the new material to prove compliance. Raw materials are to include all water used in the process. Water from municipal sources complying with drinking water standards is acceptable. Water from other sources such as private wells should be analyzed for contaminants. Water that has been used in the process should be considered for treatment and recycling as an additional source of process water.

(c) If offending constituents are a result of the process, the applicant should investigate and describe the source of the constituents. A report of this information will be submitted to EPA and the applicant will then submit a proposal describing possible alternatives to the existing process or processes and level of cost and effectiveness.

(d) If an acceptable alternative to ocean dumping or additional control technology is required, a schedule and documentation for implementation of the alternative or approved control process shall be submitted and shall include, without limitation:

(1) Engineering plan;

(2) Financing approval;

(3) Starting date for change;

(4) Completiodate;

(5) Operation starting date.

(e) If an acceptable alternative does not exist at the time the application is submitted, the applicant will submit an acceptable in-house research program or employ a competent research institution to study the problem. The program of research must be approved by the Administrator or Regional Administrator, as the case may be, before the initiation of the research. The schedule and documentation for implementation of a research program will include, without limitation:

(1) Approaches;

(2) Experimental design;

(3) Starting date;

(4) Reporting intervals;

(5) Proposed completion date;

(6) Date for submission of final report.

§ 227.26 Implementation of plans.

Implementation of each phase of a plan shall be initiated as soon as it is approved by the Administrator or Regional Administrator, as the case may be.

Subpart G—Definitions

§ 227.27 Limiting permissible concentration (LPC).

(a) The limiting permissible concentration of the liquid phase of a material is:

(1) That concentration of a constituent which, after allowance for initial mixing as provided in § 227.29, does not exceed applicable marine water quality criteria; or, when there are no applicable marine water quality criteria,

(2) That concentration of waste or dredged material in the receiving water which, after allowance for initial mixing, as specified in § 227.29, will not exceed a toxicity threshold defined as 0.01 of a concentration shown to be acutely toxic to appropriate sensitive marine organisms in a bioassay carried out in accordance with approved EPA procedures.

(3) When there is reasonable scientific evidence on a specific waste material to justify the use of an application factor other than 0.01 as specified in paragraph (a)(2) of this section, such alternative application factor shall be used in calculating the LPC.

(b) The limiting permissible concentration of the suspended particulate and solid phases of a material means that concentration which will not cause unreasonable acute or chronic toxicity or other sublethal adverse effects based on bioassay results using appropriate sensitive marine organisms in the case of the suspended particulate phase, or appropriate sensitive benthic marine organisms in the case of the solid phase; and which will not cause accumulation of toxic materials in the human food chain. These bioassays are to be conducted in accordance with procedures approved by EPA, or, in the case of dredged material, approved by EPA and the Corps of Engineers.[1]

(c) "Appropriate sensitive marine organisms" means at least one species each representative of phytoplankton or zooplankton, crustacean or mollusk, and fish species chosen from among the most sensitive species documented in the scientific literature or accepted by EPA as being reliable test organisms to determine the anticipated impact of the wastes on the ecosystem at the disposal site. Bioassays, except on phytoplankton or zooplankton, shall be run for a minimum of 96 hours under temperature, salinity, and dissolved oxygen conditions representing the extremes of environmental stress at the disposal site. Bioassays on phytoplankton or zooplankton may be run for shorter periods of time as appropriate for the organisms tested at the discretion of EPA, or EPA and the Corps of Engineers, as the case may be.

(d) "Appropriate sensitive benthic marine organisms" means at least one species each representing filter-feeding, deposit-feeding, and burrowing species chosen from among the most sensitive species accepted by EPA as being reliable test organisms to determine the anticipated impact on the site; provided, however, that until sufficient species are adequately tested and documented, interim guidance on appropriate organisms available for use will be provided by the Administrator, Regional Administrator, or the District Engineer, as the case may be.

[42 FR 2476, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978]

§ 227.28 Release zone.

The release zone is the area swept out by the locus of points constantly 100 meters from the perimeter of the conveyance engaged in dumping activities, beginning at the first moment in which dumping is scheduled to occur and ending at the last moment in which dumping is scheduled to occur. No release zone shall exceed the total surface area of the dumpsite.

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[1] An implementation manual is being developed jointly by EPA and the Corps of Engineers, and announcement of the availability of the manual will be published in the FEDERAL REGISTER. Until this manual is available, interim guidance on the appropriate procedures can be obtained from the Marine Protection Branch, WH-548, Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, or the Corps of Engineers, as the case may be.

§ 227.29 Initial mixing.

(a) Initial mixing is defined to be that dispersion or diffusion of liquid, suspended particulate, and solid phases of a waste which occurs within four hours after dumping. The limiting permissible concentration shall not be exceeded beyond the boundaries of the disposal site during initial mixing, and shall not be exceeded at any point in the marine environment after initial mixing. The maximum concentration of the liquid, suspended particulate, and solid phases of a dumped material after initial mixing shall be estimated by one of these methods, in order of preference:

(1) When field data on the proposed dumping are adequate to predict initial dispersion and diffusion of the waste, these shall be used, if necessary, in conjunction with an appropriate mathematical model acceptable to EPA or the District Engineer, as appropriate.

(2) When field data on the dispersion and diffusion of a waste of characteristics similar to that proposed for discharge are available, these shall be used in conjunction with an appropriate mathematical model acceptable to EPA or the District Engineer, as appropriate.

(3) When no field data are available, theoretical oceanic turbulent diffusion relationships may be applied to known characteristics of the waste and the disposal site.

(b) When no other means of estimation are feasible.

(1) The liquid and suspended particulate phases of the dumped waste may be assumed to be evenly distributed after four hours over a column of water bounded on the surface by the release zone and extending to the ocean floor, thermocline, or halocline if one exists, or to a depth of 20 meters, whichever is shallower, and

(2) The solid phase of a dumped waste may be assumed to settle rapidly to the ocean bottom and to be distributed evenly over the ocean bottom in an area equal to that of the release zone as defined in § 227.28.

(c) When there is reasonable scientific evidence to demonstrate that other methods of estimating a reasonable allowance for initial mixing are appropriate for a specific material, such methods may be used with the concurrence of EPA after appropriate scientific review.

§ 227.30 High-level radioactive waste.

High-level radioactive waste means the aqueous waste resulting from the operation of the first cycle solvent extraction system, or equivalent, and the concentrated waste from subsequent extraction cycles, or equivalent, in a facility for reprocessing irradiated reactor fuels or irradiated fuel from nuclear power reactors.

§ 227.31 Applicable marine water quality criteria.

Applicable marine water quality criteria means the criteria given for marine waters in the EPA publication "Quality Criteria for Water" as published in 1976 and amended by subsequent supplements or additions.

§ 227.32 Liquid, suspended particulate, and solid phases of a material.

(a) For the purposes of these regulations, the liquid phase of a material, subject to the exclusions of paragraph (b) of this section, is the supernatant remaining after one hour undisturbed settling, after centrifugation and filtration through a 0.45 micron filter. The suspended particulate phase is the supernatant as obtained above prior to centrifugation and filtration. The solid phase includes all material settling to the bottom in one hour. Settling shall be conducted according to procedures approved by EPA.

(b) For dredged material, other material containing large proportions of insoluble matter, materials which may interact with ocean water to form insoluble matter or new toxic compounds, or materials which may release toxic compounds upon deposition, the Administrator, Regional Administrator, or the District Engineer, as the case may be, may require that the separation of liquid, suspended particulate, and solid phases of the material be performed upon a mixture of the waste with ocean water rather than on the material itself. In such cases the following procedures shall be used:

(1) For dredged material, the liquid phase is considered to be the centrifuged and 0.45 micron filtered supernatant remaining after one hour undisturbed settling of the mixture resulting from a vigorous 30-minute agitation of one part bottom sediment from the dredging site with four parts water (vol/vol) collected from the dredging site or from the disposal site, as appropriate for the type of dredging operation. The suspended particulate phase is the supernatant as obtained above prior to centrifugation and filtration. The solid phase is considered to be all material settling to the bottom within one hour. Settling shall be conducted by procedures approved by EPA and the Corps of Engineers.

(2) For other materials, the proportion of ocean water used shall be the minimum amount necessary to produce the anticipated effect (e.g., complete neutralization of an acid or alkaline waste) based on guidance provided by EPA on particular cases, or in accordance with approved EPA procedures. For such materials the liquid phase is the filtered and centrifuged supernatant resulting from the mixture after 30 minutes of vigorous shaking followed by undisturbed settling for one hour. The suspended particulate phase is the supernatant as obtained above prior to centrifugation and filtration. The solid phase is the insoluble material settling to the bottom in that period.

PART 228—CRITERIA FOR THE MANAGEMENT OF DISPOSAL SITES FOR OCEAN DUMPING

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228.12 Delegation of management authority for interim ocean dumping sites.
228.13 Guidelines for ocean disposal site baseline or trend assessment surveys under section 102 of the Act.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2482, Jan. 11, 1977, unless otherwise noted.

§ 228.1 Applicability.

The criteria of this Part 228 are established pursuant to section 102 of the Act and apply to the evaluation of proposed ocean dumping under Title I of the Act. The criteria of this Part 228 deal with the evaluation of the proposed dumping of material in ocean waters in relation to continuing requirements for effective management of ocean disposal sites to prevent unreasonable degradation of the marine environment from all wastes being dumped in the ocean. This Part 228 is applicable to dredged material disposal sites only as specified in §§ 228.4(e), 228.9, and 228.12.

§ 228.2 Definitions.

(a) The term "disposal site" means an interim or finally approved and precise geographical area within which ocean dumping of wastes is permitted under conditions specified in permits issued under sections 102 and 103 of the Act. Such sites are identified by boundaries established by (1) coordinates of latitude and longitude for each corner, or by (2) coordinates of latitude and longitude for the center point and a radius in nautical miles from that point. Boundary coordinates shall be identified as precisely as is warranted by the accuracy with which the site can be located with existing navigational aids or by the implantation of transponders, buoys or other means of marking the site.

(b) The term "baseline" or "trend assessment" survey means the planned sampling or measurement of parameters at set stations or in set areas in and near disposal sites for a period of time sufficient to provide synoptic data for determining water quality, benthic, or biological conditions as a result of ocean disposal operations.

The minimum requirements for such surveys are given in § 228.13.

(c) The term "disposal site evaluation study" means the collection, analysis, and interpretation of all pertinent information available concerning an existing disposal site, including but not limited to, data and information from trend assessment surveys, monitoring surveys, special purpose surveys of other Federal agencies, public data archives, and social and economic studies and records of affected areas.

(d) The term "disposal site designation study" means the collection, analysis and interpretation of all available pertinent data and information on a proposed disposal site prior to use, including but not limited to, that from baseline surveys, special purpose surveys of other Federal agencies, public data archives, and social and economic studies and records of areas which would be affected by use of the proposed site.

(e) The term "management authority" means the EPA organizational entity assigned responsibility for implementing the management functions identified in § 228.3.

(f) "Statistical significance" shall mean the statistical significance determined by using appropriate standard techniques of multivariate analysis with results interpreted at the 95 percent confidence level and based on data relating species which are present in sufficient numbers at control areas to permit a valid statistical comparison with the areas being tested.

(g) "Valuable commercial and recreational species" shall mean those species for which catch statistics are compiled on a routine basis by the Federal or State agency responsible for compiling such statistics for the general geographical area impacted, or which are under current study by such Federal or State agencies for potential development for commercial or recreational use.

(h) "Normal ambient value" means that concentration of a chemical species reasonably anticipated to be present in the water column, sediments, or biota in the absence of disposal activities at the disposal site in question.

§ 228.3 Disposal site management responsibilities.

(a) Management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation and designation studies; and recommending modifications in site use and/or designation (e.g., termination of use of the site for general use or for disposal of specific wastes).

(b) Each site, upon interim or continuing use designation, will be assigned to either an EPA Regional office or to EPA Headquarters for management. These designations will be consistent with the delegation of authority in § 220.4. The designated management authority is fully responsible for all aspects of the management of sites within the general requirements specified in § 220.4 and this section. Specific requirements for meeting the management responsibilities assigned to the designated management authority for each site are outlined in §§ 228.5 and 228.6.

§ 228.4 Procedures for designation of sites.

(a) *General Permits.* Geographical areas or regions within which materials may be dumped under a general permit will be published as part of the promulgation of each general permit.

(b) *Special and Interim Permits.* Areas where ocean dumping is permitted subject to the specific conditions of individual special or interim permits, will be designated by promulgation in this Part 228, and such designation will be made based on environmental studies of each site, regions adjacent to the site, and on historical knowledge of the impact of waste disposal on areas similar to such sites in physical, chemical, and biological characteristics. All studies for the evaluation and potential selection of dumping sites will be conducted in accordance with the requirements of §§ 228.5 and 228.6.

The Administrator may, from time to time, designate specific locations for temporary use for disposal of small amounts of materials under a special permit only without disposal site designation studies when such materials satisfy the Criteria and the Administrator determines that the quantities to be disposed of at such sites will not result in significant impact on the environment. Such designations will be done by promulgation in this Part 228, and will be for a specified period of time and for specified quantities of materials.

(c) *Emergency Permits.* Dumping sites for materials disposed of under an emergency permit will be specified by the Administrator as a permit condition and will be based on an individual appraisal of the characteristics of the waste and the safest means for its disposal.

(d) *Research Permits.* Dumping sites for research permits will be determined by the nature of the proposed study. Dumping sites will be specified by the Administrator as a permit condition.

(e) *Dredged Material Permits.*

(1) Areas where ocean dumping of dredged material is permitted subject to the specific conditions of Dredged Material permits issued by the U.S. Army Corps of Engineers will be designated by EPA promulgation in this Part 228, and such designation will be made based on environmental studies of each site, regions adjacent to the site, and on historical knowledge of the impact of dredged material disposal on areas similar to such sites in physical, chemical, and biological characteristics. All studies for the evaluation and potential selection of dredged material disposal sites will be conducted in accordance with the appropriate requirements of §§ 228.5 and 228.6, except that:

(i) Baseline or trend assessment requirements may be developed on a case-by-case basis from the results of research, including that now in progress by the Corps of Engineers.

(ii) An environmental impact assessment for all sites within a particular geographic area may be prepared based on complete disposal site designation or evaluation studies on a typical site or sites in that area. In such cases, sufficient studies to demonstrate the generic similarity of all sites within such a geographic area will be conducted.

(2) In those cases where a recommended disposal site has not been designated by the Administrator, or where it is not feasible to utilize a recommended disposal site that has been designated by the Administrator, the District Engineer shall, in consultation with EPA, select a site in accordance with the requirements of §§ 228.5 and 228.6(a). Concurrence by EPA in permits issued for the use of such site for the dumping of dredged material at the site will constitute EPA approval of the use of the site for dredged material disposal only.

(3) Sites designated for the ocean dumping of dredged material in accordance with the procedures of paragraph (e)(1) or (2) of this section shall be used only for the ocean dumping of dredged material under permits issued by the U.S. Army Corps of Engineers.

§ 228.5 General criteria for the selection of sites.

(a) The dumping of materials into the ocean will be permitted only at sites or in areas selected to minimize the interference of disposal activities with other activities in the marine environment, particularly avoiding areas of existing fisheries or shellfisheries, and regions of heavy commercial or recreational navigation.

(b) Locations and boundaries of disposal sites will be so chosen that temporary perturbations in water quality or other environmental conditions during initial mixing caused by disposal operations anywhere within the site can be expected to be reduced to normal ambient seawater levels or to undetectable contaminant concentrations or effects before reaching any beach, shoreline, marine sanctuary, or known geographically limited fishery or shellfishery.

(c) If at any time during or after disposal site evaluation studies, it is determined that existing disposal sites presently approved on an interim basis for ocean dumping do not meet the criteria for site selection set forth in §§ 228.5 through 228.6, the use of such sites will be terminated as soon as suitable alternate disposal sites can be designated.

(d) The sizes of ocean disposal sites will be limited in order to localize for identification and control any immediate adverse impacts and permit the implementation of effective monitoring and surveilance programs to prevent adverse long-range impacts. The size, configuration, and location of any disposal site will be determined as a part of the disposal site evaluation or designation study.

(e) EPA will, wherever feasible, designate ocean dumping sites beyond the edge of the continental shelf and other such sites that have been historically used.

§ 228.6 Specific criteria for site selection.

(a) In the selection of disposal sites, in addition to other necessary or appropriate factors determined by the Administrator, the following factors will be considered:

(1) Geographical position, depth of water, bottom topography and distance from coast;

(2) Location in relation to breeding, spawning, nursery, feeding, or passage areas of living resources in adult or juvenile phases;

(3) Location in relation to beaches and other amenity areas;

(4) Types and quantities of wastes proposed to be disposed of, and proposed methods of release, including methods of packing the waste, if any;

(5) Feasibility of surveillance and monitoring;

(6) Dispersal, horizontal transport and vertical mixing characteristics of the area, including prevailing current direction and velocity, if any;

(7) Existence and effects of current and previous discharges and dumping in the area (including cumulative effects);

(8) Interference with shipping, fishing, recreation, mineral extraction, desalination, fish and shellfish culture, areas of special scientific importance and other legitimate uses of the ocean;

(9) The existing water quality and ecology of the site as determined by available data or by trend assessment or baseline surveys;

(10) Potentiality for the development or recruitment of nuisance species in the disposal site;

(11) Existence at or in close proximity to the site of any significant natural or cultural features of historical importance.

(b) The results of a disposal site evaluation and/or designation study based on the criteria stated in paragraphs (b)(1) through (11) of this section will be presented in support of the site designation promulgation as an environmental assessment of the impact of the use of the site for disposal, and will be used in the preparation of an environmental impact statement for each site where such a statement is required by EPA policy. By publication of a notice in accordance with this Part 228, an environmental impact statement, in draft form, will be made available for public comment not later than the time of publication of the site designation as proposed rulemaking, and a final EIS will be made available at the time of final rulemaking.

§ 228.7 Regulation of disposal site use.

Where necessary, disposal site use will be regulated by setting limitations on times of dumping and rates of discharge, and establishing a disposal site monitoring program.

§ 228.8 Limitations on times and rates of disposal.

Limitations as to time for and rates of dumping may be stated as part of the promulgation of site designation. The times and the quantities of permitted material disposal will be regulated by the EPA management authority so that the limits for the site as specified in the site designation are not exceeded. This will be accomplished by the denial of permits for the disposal of some materials, by the imposition of appropriate conditions on other permits and, if necessary, the designation of new disposal sites under the procedures of § 228.4. In no case may the total volume of material disposed of at any site under special or interim permits cause the concentration of the total materials or any constituent of any of the materials being disposed of at the site to exceed limits specified in the site designation.

§ 228.9 Disposal site monitoring.

(a) The monitoring program, if deemed necessary by the Regional Administrator or the District Engineer, as appropriate, may include baseline or trend assessment surveys by EPA, NOAA, other Federal agencies, or contractors, special studies by permittees, and the analysis and interpretation of data from remote or automatic sampling and/or sensing devices. The primary purpose of the monitoring program is to evaluate the impact of disposal on the marine environment by referencing the monitoring results to a set of baseline conditions. When disposal sites are being used on a continuing basis, such programs may consist of the following components:

(1) Trend assessment surveys conducted at intervals frequent enough to assess the extent and trends of environmental impact. Until survey data or other information are adequate to show that changes in frequency or scope are necessary or desirable, trend assessment and baseline surveys should generally conform to the applicable requirements of § 228.13. These surveys shall be the responsibility of the Federal government.

(2) Special studies conducted by the permittee to identify immediate and short-term impacts of disposal operations.

(b) These surveys may be supplemented, where feasible and useful, by data collected from the use of automatic sampling buoys, satellites or in situ platforms, and from experimental programs.

(c) EPA will require the full participation of permittees, and encourage the full participation of other Federal and State and local agencies in the development and implementation of disposal site monitoring programs. The monitoring and research programs presently supported by permittees may be incorporated into the overall monitoring program insofar as feasible.

§ 228.10 Evaluating disposal impact.

(a) Impact of the disposal at each site designated under section 102 of the Act will be evaluated periodically and a report will be submitted as appropriate as part of the Annual Report to Congress. Such reports will be prepared by or under the direction of the EPA management authority for a specific site and will be based on an evaluation of all data available from baseline and trend assessment surveys, monitoring surveys, and other data pertinent to conditions at and near a site.

(b) The following types of effects, in addition to other necessary or appropriate considerations, will be considered in determining to what extent the marine environment has been impacted by materials disposed of at an ocean disposal site:

(1) Movement of materials into estuaries or marine sanctuaries, or onto oceanfront beaches, or shorelines;

(2) Movement of materials toward productive fishery or shellfishery areas;

(3) Absence from the disposal site of pollution-sensitive biota characteristic of the general area;

(4) Progressive, non-seasonal, changes in water quality or sediment composition at the disposal site, when these changes are attributable to materials disposed of at the site;

(5) Progressive, non-seasonal, changes in composition or numbers of pelagic, demersal, or benthic biota at or near the disposal site, when these changes can be attributed to the effects of materials disposed of at the site;

(6) Accumulation of material constituents (including without limitation, human pathogens) in marine biota at or near the site.

(c) The determination of the overall severity of disposal at the site on the marine environment, including without limitation, the disposal site and adjacent areas, will be based on the evaluation of the entire body of pertinent data using appropriate methods of data analysis for the quantity and type of data available. Impacts will be categorized according to the overall condition of the environment of the disposal site and adjacent areas based on the determination by the EPA management authority assessing the nature and extent of the effects identified in paragraph (b) of this section in addition to other necessary or appropriate considerations. The following categories shall be used:

(1) *Impact Category I*: The effects of activities at the disposal site shall be categorized in Impact Category I when one or more of the following conditions is present and can reasonably be attributed to ocean dumping activities;

(i) There is identifiable progressive movement or accumulation, in detectable concentrations above normal ambient values, of any waste or waste constituent from the disposal site within 12 nautical miles of any shoreline, marine sanctuary designated under Title III of the Act, or critical area designated under section 102(c) of the Act; or

(ii) The biota, sediments, or water column of the disposal site, or of any area outside the disposal site where any waste or waste constituent from the disposal site is present in detectable concentrations above normal ambient values, are adversely affected by the toxicity of such waste or waste constituent to the extent that there are statistically significant decreases in the populations of valuable commercial or recreational species, or of specific species of biota essential to the propagation of such species, within the disposal site and such other area as compared to populations of the same organisms in comparable locations outside such site and area; or

(iii) Solid waste material disposed of at the site has accumulated at the site or in areas adjacent to it, to such an extent that major uses of the site or of adjacent areas are significantly impaired and the Federal or State agency responsible for regulating such uses certifies that such significant impairment has occurred and states in its certificate the basis for its determination of such impairment; or

(iv) There are adverse effects on the taste or odor of valuable commercial or recreational species as a result of disposal activities; or

(v) When any toxic waste, toxic waste constituent, or toxic byproduct of waste interaction, is consistently identified in toxic concentrations above normal ambient values outside the disposal site more than 4 hours after disposal.

(2) *Impact Category II*: The effects of activities at the disposal site which are not categorized in Impact Category I shall be categorized in Impact Category II.

§ 228.11 Modification in disposal site use.

(a) Modifications in disposal site use which involve the withdrawal of designated disposal sites from use or permanent changes in the total specified quantities or types of wastes permitted to be discharged to a specific disposal site will be made through promulgation of an amendment to the disposal site designation set forth in this Part 228 and will be based on the results of the analyses of impact described in § 228.10 or upon changed circumstances concerning use of the site.

(b) Modifications in disposal site use promulgated pursuant to paragraph (a) of this section shall not automatically modify conditions of any outstanding permit issued pursuant to this Subchapter H, and provided further that unless the EPA management authority for such site modifies, revokes or suspends such permit or any of the terms or conditions of such permit in accordance with the provisions of § 232.2 based on the results of impact analyses as described in § 228.10 or upon changed circumstances concerning use of the site, such permit will remain in force until its expiration date.

(c) When the EPA management authority determines that activities at a disposal site have placed the site in Impact Category I, the Administrator or the Regional Administrator, as the case may be, shall place such limitations on the use of the site as are necessary to reduce the impacts to acceptable levels.

(d) The determination of the Administrator as to whether to terminate or limit use of a disposal site will be based on the impact of disposal at the site itself and on the Criteria.

[42 FR 2482, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978]

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§ 228.12 Delegation of management authority for interim ocean dumping sites.

(a) The following sites are approved for dumping the indicated materials on an interim basis pending completion of baseline or trend assessment surveys and designation for continuing use or termination of use. Management authority for all sites is delegated to the EPA organizational entity under which each site is listed. The sizes and use specifications are based on historical usage and do not necessarily meet the criteria stated in this part.

(1) The following sites for disposal of dredged material under Corps of Engineers permits under section 103 of the Act will remain in force according to the following schedule:

(i) Until such time as formal rulemaking is completed or until December 31, 1988, whichever is sooner:

(A) [Reserved]

(B) [Reserved]

(C) Pascagoula, MS.

(D) Humboldt Bay, CA.

(E) Long Beach, CA.

(F) San Diego, CA (2 sites).

(G) New Jersey/Long Island Sites (8 sites): Absecon Inlet, NJ; Cold Spring Inlet, NJ; Manasquan Inlet, NJ; East Rockaway, NY; Jones Inlet, NY; Fire Island, NY; Shark River, NJ; and Rockaway Inlet, NY.

(H) [Reserved]

(ii) Until such time as formal rulemaking is completed or until July 31, 1988, whichever is sooner:

(A)-(O) [Reserved] (See editorial note two at end of section.)

(2) The interim designations of the following sites are terminated effective immediately:

(i) Both Region I industrial waste sites.

(ii) Region II wreck site.

(iii) Region III acid wastes site.

(iv) Region IV industrial wastes site.

(v) The Region VI industrial waste site located at 28d 00' to 28d 10' N, and 89d 15' to 89d 30' W.

(vi) Port Mansfield Channel Disposal Area 1-A.

(3) The interim designations of all other dredged material sites listed in § 228.12(a) and the Region II wood incineration site are extended indefinitely, pending completion of the present studies and determination of the need for continuing use of these sites, the completion of any necessary studies, and evaluation of their suitability. Designation studies for particular sites within this group will begin as soon as feasible after the completion of nearby sites presently being studied.

APPROVED INTERIM DUMPING SITES

Location (latitude, longitude)	EPA region	Primary use
43°33'00" N., 69°55'00" W., 1 nautical mile radius	I	Industrial wastes.
42°25'42" N., 70°35'00" W., 1 nautical mile radius	I	Do.
40°22'30" N. to 40°25'00" N., 73°41'30" W. to 73°45'00" W.	II	Municipal sewage sludge.
40°16'00" N. to 40°20'00" N., 73°36'00" W. to 73°40'00" W.	II	Acid wastes.
40°23'00" N., 73°49'00" W., 0.6 nautical mile radius	II	Cellar dirt.
40°10'00" N., 73°42'00" W., 0.5 nautical mile radius	II	Wrecks.
19°10'00" N. to 19°20'00" N., 66°35'00" W. to 66°50'00" W.	II	Industrial wastes.
38°30'00" N. to 38°35'00" N., 74°15'00" W. to 74°25'00" W.	III	Acid wastes.
38°20'00" N. to 38°25'00" N., 74°10'00" W. to 74°20'00" W.	III	Municipal sewage sludge.
31°46'00" N., 80°30'00" W., 31°47'06" N., 80°29'00" W., 31°48'00" N., 80°30'30" W., 31°46'30" N., 80°32'00" W.	IV	Industrial wastes.
27°12'00" N. to 27°29'00" N., 94°28'00" W. to 94°44'00" W.	VI	Do.
28°00'00" N. to 28°10'00" N., 89°15'00" W. to 89°30'00" W.	VI	Do.
40°00'00" N. to 40°04'20" N., 73°41'00" W. to 73°38'10" W.	II	Incineration of wood.

DREDGED MATERIAL SITES

(All dredged material sites will be retained under EPA Headquarters management until formally approved for continuing use or otherwise assigned for Regional management prior to such designation.)

LOCATION (LAT., LONG.)

Newburyport, MA—42°48'50" N., 70°47'00" W.; (½ N. Mi. square).

Marblehead, MA—42°25'42" N., 70°34'00" W. (2 N. Mi. diameter).

Boston, MA—41°49'00" N., 70°25'00" W. (1 N. Mi. diameter).

Cape Arundel, ME—43°17'45" N., 70°27'12" W. (500 yds. diameter).

Absecon Inlet—39°21'07" N., 74°23'40" W.; 39°21'18" N., 74°23'53" W.

Cold Spring Inlet—38°55'41" N., 74°53'05" W.; 38°55'33" N., 74°53'23" W.

Manasquan Inlet—40°06'22" N., 74°01'46" W.; 40°06'38" N., 74°01'39" W.

East Rockaway—40°34'36" N., 73°49'00" W.; 40°35'06" N., 73°47'06" W.; 40°34'10" N., 73°48'36" W.; 40°34'12" N., 73°47'17" W.

Jones Inlet—40°34'32" N., 73°39'14" W.; 40°34'32" N., 73°37'06" W.; 40°33'48" N., 73°37'06" W.; 40°33'48" N., 73°39'14" W.

Fire Island—40°36'49" N., 73°23'50" W.; 40°37'12" N., 73°21'30" W.; 40°36'41" N., 73°21'20" W.; 40°36'10" N., 73°23'40" W.

Mud Dump—40°23'48" N., 73°51'28" W.; 40°21'48" N., 73°50'00" W.; 40°21'48" N., 73°51'28" W.; 40°23'48" N., 73°50'00" W.

Shark River—40°12'48" N., 73°59'45" W.; 40°12'44" N., 73°59'06" W.; 40°11'36" N., 73°59'28" W.; 40°11'42" N., 74°00'12" W.

Rockaway Inlet—40°32'30" N., 73°55'00" W.; 40°32'30" N., 73°54'00" W., 40°32'00" N., 73°54'00" W.; 40°32'00" N., 73°55'00" W.

Yabucoa Harbor, PR—18°00'54" N., 65°44'23" W.; 18°01'33" N., 65°45'58" W.; 18°03'12" N., 65°45'42" W.; 18°02'30" N., 65°43'43" W.

Port Royal Harbor—32°10'11" N., 80°36'00" W.; 32°10'06" N., 80°36'35" W.; 32°08'38" N., 80°36'23" W.; 32°08'41" N., 80°35'49" W.

Port Royal Harbor—32°05'46" N., 80°35'30" W.; 32°05'42" N., 80°36'27" W.; 32°04'22" N., 80°36'16" W.; 32°04'27" N., 80°35'18" W.

Canaveral Harbor—28°19'53" N., 80°31'08" W.; 28°18'50" N., 80°29'40" W.; 28°17'35" N., 80°30'52" W.; 28°18'38" N., 80°32'20" W.

Fort Pierce Harbor—27°28'30" N., 80°12'33" W.; 27°28'30" N., 80°11'27" W.; 27°27'30" N., 80°11'27" W.; 27°27'30" N., 80°12'33" W.

Jacksonville Harbor—30°21'30" N., 81°18'34" W.; 30°21'30" N., 81°17'26" W.; 30°20'30" N., 81°17'26" W.; 30°20'30" N., 81°18'34" W.

Miami Beach—25°45'30" N., 80°03'54" W.; 25°45'30" N., 80°02'50" W.; 25°44'30" N., 80°02'50" W.; 25°44'30" N., 80°03'54" W.

Palm Beach Harbor—26°46'10" N., 80°02'00" W.; 26°45'54" N., 80°02'06" W.; 26°45'54" N., 80°02'13" W.; 26°46'10" N., 80°02'07" W.

Port Everglades Harbor—26°07'00" N., 80°04'30" W.; 26°07'00" N., 80°03'30" W.; 26°06'00" N., 80°03'30" W.; 26°06'00" N., 80°04'30" W.

Charlotte Harbor—26°37'36" N., 82°19'55" W.; 26°37'36" N., 82°18'47" W.; 26°36'36" N., 82°18'47" W.; 26°36'36" N., 82°19'55" W.

Palm Beach Harbor—26°46'00" N., 79°58'55" W.; 26°46'00" N., 79°57'47" W.; 26°45'00" N., 79°57'47" W.; 26°45'00" N., 79°58'55" W.

Key West—24°27'24" N., 81°45'38" W.; 24°27'24" N., 81°44'32" W.; 24°26'20" N., 81°44'32" W.; 24°26'20" N., 81°45'38" W.

Pascagoula, MS—30°11.9' N., 88°33.1' W.; 30°11.9' N., 88°32.3' W.; 30°11.6' N., 88°32.4' W.; 30°11.6' N., 88°32.1' W.; 30°10.5' N., 88°33.2' W.; 30°10.6' N., 88°34.0' W.

Panama City, FL—30°07.1' N., 85°45.9' W.; 30°07.2' N., 85°45.5' W.; 30°06.9' N., 85°45.1' W.; 30°06.7' N., 85°45.6' W.

Port St. Joe, FL—29°50.9' N., 85°29.9' W.; 29°51.3' N., 85°29.5' W.; 29°49.2' N., 85°28.2' W.; 29°49.0' N., 85°28.8' W.

Port St. Joe, FL—29°53.9' N., 85°31.8' W.; 29°54.1' N., 85° 31.3' W.; 29°52.2' N., 85°30.1' W.; 29°52.2' N., 85°30.8' W.

Galveston Harbor and Channel, Texas

Disposal Area No. 1—Beginning at lat. 29°18'00", long. 94°39'30"; thence to lat. 29°15'54", long. 94°37'06"; thence to lat. 29°14'24", long. 94°38'42"; thence to lat. 29°16'54", long. 94°41'30"; thence to point of beginning.

Freeport Harbor, Texas

Disposal Area No. 1—Beginning at lat. 28°54'42", long. 95°17'38"; thence to lat. 28°54'-3"; long. 95°16'54"; thence to lat. 28°53'48", long. 95°17'27"; thence to lat. 28°54'21", long. 95°18'03"; thence to point of beginning.

Matagorda Ship Channel

Disposal Area No. 1—Beginning at lat. 28°24'31", long. 96°18'48"; thence to lat. 28°23'27", long. 96°17'38"; thence to lat. 28°23'15", long. 96°17'54"; thence to lat. 28°24'18", long. 96°19'03"; thence to point of beginning.

Corpus Christi Ship Channel

Disposal Area No. 1—Beginning at lat. 27°49'34", long. 97°01'51"; thence to lat. 27°48'28", long. 96°59'49"; thence to lat. 27°48'18", long 96°59'56"; thence to lat. 27°49'23", long. 97°01'58"; thence to point of beginning.

Port Mansfield Channel

Disposal Area No. 1—Beginning at lat. 26°34'09", long. 97°15'52"; thence to lat. 26°34'09", long. 97°15'18"; thence to lat. 26°33'57", long. 97°15'18"; thence to lat. 26°33'57", long. 97°15'52"; thence to point of beginning.

Disposal Area No. 1-A—Beginning at lat. 26°34'17", long. 97°16'12"; thence to lat. 26°34'18", long. 97°15'55"; thence to lat. 26°33'59", long. 97°15'52"; thence to lat. 26°33'58", long. 97°16'11"; thence to point of beginning.

BRAZOS ISLAND HARBOR

Disposal Area No. 1—Beginning at lat. 26°04′38″, long. 97°07′52″; thence to lat. 26°04′38″, long. 97°07′42″; thence to lat. 26°04′05″, long. 97°06′42″; thence to lat. 26°04′05″, long. 97°07′52″; thence to point of beginning.

Mississippi River, Gulf Outlet, La.—Breton Sound and Bar Channel. Maintenance dredging disposal area 0.5 mile wide by 12.5 miles long, parallel to the channel and located on the south side. Beginning at 29°32′23″ N. and 89°12′20″ W., following channel centerline (azimuth 308°47′) in Breton Sound to 29°25′15″ N. and 89°07′06″ W., following centerline (azimuth 300°36′) of the gulf entrance channel to 29°25′06″ N. and 88°59′54″ W., thence to 29°24′45″ N. and 89°00′09″ W., thence to 29°28′53″ N., and 89°08′08″ W., thence to 29°31′41″ N. and 89°12′09″ W., thence to the point of beginning.

Mississippi River, Baton Rouge to the Gulf of Mexico, La.—South Pass. Maintenance dredging disposal area 0.5 mile square, parallel to the channel and located on the west side. Beginning at 28°58′33″ N. and 89°07′00″ W., following channel centerline (azimuth 295°41′) of the gulf entrance channel to 28°58′24″ N. and 89°06′30″ W., thence to 28°57′54″ N. and 89°06′42″ W., thence to 28°58′06″ N. and 89°07′18″ W., thence to the point of beginning.

Mississippi River Outlets, Venice, La.—Tiger Pass. Maintenance dredging disposal area 0.5 mile wide by 2.5 miles long, parallel and adjacent to the channel and located on the south side. Beginning at 29°08′24″ W. and 89°25′35″ N. following 270° azimuth to 29°08′24″ W. and 89°28′05″ N., thence to 29°07′54″ W. and 89°28′05″ N., thence to 29°07′54″ W. and 89°25′35″ N., thence to the point of beginning.

Waterway from Empire, La. to the Gulf of Mexico—Bar channel. Maintenance dredging disposal area 0.5 mile wide by 1 mile long, parallel to the channel and located on the west side. Beginning at 29°15′06″ N. and 89°36′30″ W., following channel centerline (azimuth 11°08′) of the gulf entrance channel to 29°14′30″ N. and 86°36′36″ W., thence to 29°14′36″ N. and 89°36′48″ W., thence to 29°15′12″ N. and 89°36′42″ W., thence to the point of beginning.

Barataria Bay Waterway, La.—Bar channel. Maintenance dredging disposal area 0.5 miles wide by 2 miles long, parallel to the channel and located on the east side 1,500 feet distance from the channel. Beginning at 29°16′13″ N. and 89°55′54″ W., following azimuth 312°07′ to 29°14′45″ N. and 89°54′05″ W., thence to 29°14′30.5″ N. and 89°53′45″ W., thence to 29°15′54″ N. and 89°55′34″, thence to the point of beginning.

Bayou Lafourche and Lafourche—Jump Waterway, La.—Bell Pass. Maintenance dredging disposal area 2,000 feet wide by 1.5 miles long, parallel to the channel and located on the west side. Beginning at 29°05′00″ N. and 90°13′45″ W., following Bell Pass centerline (azimuth 12°55′) in the gulf entrance channel to 29°03′51″ N. and 90°14′06″ W., thence to 29°03′57″ N. and 90°14′21″ W., thence to 29°05′06″ N. and 90°14′03″ W., thence to the point of beginning.

Houma Navigation Canal, La.—Cat Island Pass. Maintenance dredging disposal area approximately 0.5 miles wide by 5 miles long parallel to the Cat Island Channel and located on the west side 1,000 feet from the channel centerline. Beginning at 29°05′30″ N. and 90°34′41″ W., following azimuth 358°41′ to 29°03′39.5″ N. and 90°34′38.5″ W., following azimuth 354° to 29°01′10″ N. and 90°34′20″ W., thence to 29°01′10″ N. and 90°34′54″ W., thence to 29°03′39.5″ N. and 90°35′12″ W., thence to 29°05′30″ N. and 90°35′14″ W., thence to the point of beginning.

Atchafalaya River–Morgan City to the Gulf of Mexico, La. and Atchafalaya River and Bayous Chene, Boeuf and Black, La.—Bar channel. Maintenance dredging disposal area 0.5 mile wide by 12 miles long, parallel to the bar channel and located on the east side. Beginning at 29°20′50″ N. and 91°24′03″ W., following channel centerline (azimuth 37°57′) of the gulf entrance channel to 29°11′35″ N. and 91°32′10″ W., thence to 29°11′21″ N. and 91°31′37″ W., thence to 29°20′36″ N. and 91°23′27″ W., thence to the point of beginning.

Freshwater Bayou, La.—Bar channel. Maintenance dredging disposal area 2,000 feet wide by 3.5 miles long, parallel to the channel and located on the west side. Beginning at 29°32′10″ N. and 92°18′48″ W., following channel centerline (azimuth 09°25′) of the gulf entrance to 29°28′24″ N. and 92°19′30″ W., thence to 29°28′25″ N. and 92°19′42″ W., thence to 29°32′01″ N. and 92°19′00″ W., thence to the point of beginning.

Mermentau River, La. Maintenance dredging disposal areas 0.5 mile wide and 1.5 miles long, parallel to the entrance channels in the Lower Mermentau River and in the Lover Mud Lake, both located on the west side:

Disposal Area "A", Mermentau River, La. Beginning at 29°44′48″ N. and 93°07′12″ W., following channel centerline (azimuth 256°59′) of the gulf entrance to 29°43′39″ N. and 93°07′36″ W., thence to 29°43′42″ N. and 93°07′48″ W., thence to 29°44′51″ N. and 93°07′24″ W., thence to the point of beginning.

Disposal Area "B", Mermentau River, La. Beginning at 29°43'24" N. and 93°01'54" W., following channel centerline (azimuth 359°50') of the gulf centerline to 29°42'33" N. and 93°02'12" W., thence to 29°42'36" N. and 93°02'24" W., thence to 29°43'36" N. and 93°02'06" W., thence to the point of beginning.

Crescent City Harbor—41°43'15" N., 124°12'10" W., (1,000 yd. diameter)

Humboldt Bay Harbor—40°45'44" N., 124°15'42" W. (500 yd. diameter)

Noyo River—39°25'45" N., 123°49'42" W. (500 yd. diameter)

Farallon Islands—37°31'45" N., 122°59'00" W. (1,000 yd. radius)

San Francisco Channel Bar—37°45'06" N., 122°35'45" W. (5,000 yds. x 1,000 yds.)

Moss Landing 100 fathom—36°47'53" N., 121°49'04" W. (500 yd. radius)

Moss Landing—36°48'05" N., 121°47'22" W. (50 yds. seaward of pier)

Port Hueneme—34°05'00" N., 119°14'00" W. (1,000 yd. radius)

Los Angeles—33°37'06" N., 118°17'24" W. (1,000 yd. radius)

Newport Beach—33°31'42" N., 117°54'48" W. (1,000 yd. radius)

San Diego—Point Loma—32°35'00" N., 117°17'30" W., (1,000 yd. radius)

San Diego 100 fathom—32°36'50" N., 117°20'40" W. (1,000 yd. radius)

Honolulu Harbor—21°14'30" N., 157°54'30" W. (1,000 yd. radius)

Kauai—Nawiliwili—21°55'30" N., 159°17'00" W. (1,000 yd. radius)

Kauai—Hanapepe—21°50'18" N., 159°35'30" W. (1,000 yd. radius)

Guam—Apra Harbor—13°29'30" N., 144°34'30" E. (1,000 yd. radius)

Mouth of Columbia River—46°14'37" N., 124°10'34" W.; 46°13'53" N., 124°10'01" W.; 46°13'43" N., 124°10'26" W.; 46°14'28" N., 124°10'59" W.

Mouth of Columbia River—46°13'03" N., 124°06'17" W.; 46°12'50" N., 124°05'55" W.; 46°12'13" N., 124°06'43" W.; 46°12'26" N., 124°07'05" W.

Mouth of Columbia River—46°15'43" N., 124°05'21" W.; 46°15'36" N., 124°05'11" W.; 46°15'11" N., 124°05'53" W.; 46°15'18" N., 124°06'03" W.

Mouth of Columbia River—46°12'12" N., 124°09'00" W.; 46°12'00" N., 124°08'42" W.; 46°11'48" N., 124°09'00" W.; 46°12'00" N., 124°09'18" W.

Mouth of Columbia River—46°12'05" N., 124°05'46" W.; 46°11'52" N., 124°05'25" W.; 46°11'15" N., 124°06'14" W.; 46°11'28" N., 124°06'35" W.

Chetco River Entrance—42°01'56" N., 124°16'33" W.; 42°01'56" N., 124°16'09" W.; 42°01'38" N., 124°16'09" W.; 42°01'38" N., 124°16'33" W.

Rogue River Entrance—42°24'16" N., 124°26'48" W.; 42°24'04" N., 124°26'35" W.; 42°23'40" N., 124°27'13" W.; 42°23'52" N., 124°27'26" W.

Coquille River Entrance—43°07'54" N., 124°27'04" W.; 43°07'30" N., 124°26'27" W.; 43°07'20" N., 124°26'40" W.; 43°07'44" N., 124°27'17" W.

Coos Bay Entrance—43°21'59" N., 124°22'45" W.; 43°21'48" N., 124°21'59" W.; 43°21'35" N., 124°22'05" W.; 43°21'46" N., 124°22'51" W.

Coos Bay Entrance—43°22'44" N., 124°22'18" W.; 43°22'29" N., 124°21'34" W.; 43°22'16" N., 124°21'42" W.; 43°22'31" N., 124°22'26" W.

Umpqua River Entrance—43°40'07" N., 124°14'18" W.; 43°40'07" N., 124°13'42" W.; 43°39'53" N., 124°13'42" W.; 43°39'53" N., 124°14'18" W.

Suislaw River Entrance—44°01'32" N., 124°09'37" W.; 44°01'22" N., 124°09'02" W.; 44°01'14" N., 124°09'07" W.; 44°01'24" N., 124°09'42" W.

Tillamook Bay Entrance—45°34'09" N., 123°59'37" W.; 45°34'09" N., 123°58'45" W.; 45°33'55" N., 123°58'45" W.; 45°33'55" N., 123°59'37" W.

Depoe Bay—44°48'33" N., 124°03'53" W.; 44°48'32" N., 124°03'43" W.; 44°48'15" N., 124°03'45" W.; 44°48'16" N., 124°03'55" W.

Depoe Bay—44°48'09" N., 124°05'05" W.; 44°48'09" N., 124°04'55" W.; 44°47'53" N., 124°04'55" W.; 44°47'53" N., 124°05'05" W.

Yaquina Bay and Harbor Entrance—44°36'31" N., 124°06'04" W.; 44°36'31" N., 124°05'16" W.; 44°36'17" N., 124°05'16" W.; 44°36'17" N., 124°06'04" W.

Port Orford—42°44'08" N., 124°29'38" W.; 42°44'08" N., 124°29'28" W.; 42°43'52" N., 124°29'28" W.; 42°43'52" N., 124°29'38" W.

Willapa Bay—46°44'00" N., 124°10'00" W.; 46°39'00" N., 124°09'00" W.

Anchorage Harbor—61°14'07" N., 149°53'56" W.; 61°14'16" N., 149°54'15" W.; 61°14'45" N., 149°53'36" W.; 61°14'36" N., 149°53'17" W.

Fish Cannery Waste Site—Region IX.
Location:
Latitude—14d22'S;
Longitude—170d41'W (center point).
Size: 1 nautical mile in diameter.
Depth: 1,200 meters (4,000 feet).
Primary Use: Fish cannery wastes.
Period of Use: Site will expire (36 months after date of publication).
Restriction: Disposal shall be limtied to not more than 130,000 tons per year of fish cannery wastes generated on the island of Tutuila, American Samoa.

(b) The following sites are designated "Approved Ocean Dumping Sites" for continuing use, subject to the listed restrictions:

(1) Gulf Ocean Incineration Site—Headquarters.

Location—Latitude and Longitude—
26°20'00" N. to 27°00'00" N.;
93°20'00" to 94°00'00" W.
Size—(square miles) 1892.
Depth—(feet) 4500.
Primary Use: At sea incineration primarily for organochlorine wastes. Incineration of other wastes will require research studies or equivalent technical documentation to determine acceptability for ocean incineration.
Period of use: Continuing use.
Restriction: Only one ship will be permitted to burn wastes at a time, except under extreme emergencies.

(2) Herbicide Orange Incineration Site—Headquarters.
Location—Latitude and Longitude—
15°45' to 17°45' north latitude;
171°30' to 173°30' west longitude.
Size—14,400 sq. n. mi.
Depth—greater than 15,000 feet.
Use—solely for at sea incineration of Herbicide Orange by the United States Air Force aboard the *M/T Vulcanus*, owned and operated by Ocean Combustion Service.
Period of Use—May 15, 1977, to September 30, 1977. The designation of this site will be withdrawn after this period of use.

(3) Kwajalein Ocean dumping site—Region IX.
Location—Latitude and Longitude—
08° 47' north latitude,
167° 36' east longitude.
Size—1,000 yard radius.
Depth—1,655 fathoms (9,930 feet).
Primary use—waste materials resulting from the operation of the Kwajalein Missile Range.
Period of use—Three years after issuance of an ocean dumping permit for use of this site.

(4) Sewage Sludge Site—Region II.
Location:
Latitude—40°22'30"N to 40°25'00"N;
Longitude: 73°41'30"W to 73° 45' 00"W.
Size: 22.7 square kilometers (6.6 square nautical miles).
Depth: 27 meters (90 feet).
Primary Use: Sewage sludge.
Period of Use: Until December 31, 1981.
Restriction: Disposal shall be limited to sewage sludge generated by those permitees holding ocean dumping permits which were in force on January 1, 1979. Disposal of other wastes at this site is not permitted until adequate studies of the probable impacts of those wastes on the site have been completed.

(5) Alternate Sewage Sludge Site—Region II.
Location:
Latitude—40°10'30"N to 40°13'30"N;
Longitude: 72°40'30"W to 72°43'30"W.
Size: 31 square kilometers (9 square nautical miles).
Depth: 55 meters (180 feet).
Primary Use: Sewage sludge.
Period of Use: Until December 31, 1981.
Restriction: Disposal of sewage sludge at this site shall take place only upon a finding by EPA that the existing site cannot safely accommodate any more sewage sludge without endangering public health or degrading coastal water quality. Disposal of other wastes at this site is not permitted until adequate studies of the probable impacts of those wastes on the site have been completed.

(6) San Nicolas Basin Ocean Dumping Site—Region IX.
Location—Latitude and Longitude (northwest corner)—
32°55' north latitude,
119°17' west longitude.
Size—1 square nautical mile.
Depth—400 fathoms (2,400 feet).
Primary use—disposal of formation cuttings, waste drilling mud, and non-perishable solid waste.
Period of use—three years after issuance of an ocean dumping permit for use of this site.

(7) Acid Waste Site—Region II.
Location:
Latitude—40d 16' N. to 40d 20' N.
Longitude—73d 36' W. to 73d 40' W.
Size: 41 square kilometers.
Depth: Ranges from 22.6 meters to 28.3 meters.
Primary Use: Aqueous acid waste (note restriction below).
Period of Use: Continuing use.
Restriction: Aqueous acid wastes are those that are miscible with seawater and will not form or include a significant solid phase.

(8) South Oahu Site—Region IX.
Location (center point):
Latitude—21°15'10" N.
Longitude—157°56'50" W.
Size: 2 kilometers wide and 2.6 kilometers long.
Depth: Ranges from 400 to 475 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material.

(9) Nawiliwili Site—Region IX.
Location (center point):
Latitude—21°55'00" N.
Longitude—159°17'00" W.
Size: Circular with a radius of approximately 920 meters.
Depth: Ranges from 840 to 1,120 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material.

(10) Port Allen Site—Region IX.
Location (center point):
Latitude—21°50'00" N.

Longitude—159°35′00″ W.
Size: Circular with a radius of approximately 920 meters.
Depth: Ranges from 1,460 to 1,610 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material.

(11) Kahului Site—Region IX.
Location (center point):
Latitude—21°04′42″ N.
Longitude—156°29′00″ W.
Size: Circular with a radius of approximately 920 meters.
Depth: Ranges from 345 to 365 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material.

(12) Hilo Site—Region IX.
Location (center point):
Latitude—19°48′30″ N.
Longitude—154°58′30″ W.
Size: Circular with a radius of approximately 920 meters.
Depth: Ranges from 330 to 340 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material.

(13) Cellar Dirt Site—Region II.
Location (center point):
Latitude—40° 23′ 00″ N.
Longitude—73° 49′ 00″ W.
Size: 1.1 square nautical miles.
Depth: Ranges from 29 to 38 meters.
Primary Use: Cellar dirt.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to excavation dirt and rock, broken concrete, rubble, tile, and other nonfloatable debris.

(14) Tampa Harbor Site 4—Region IV.
Location:
27°32′27″N., 83°03′46″W.;
27°30′27″N., 83°03′46″W.;
27°30′27″N., 83°06′02″W;
27°32′27″N., 83°06′02″W.
Size: 4 nautical square miles.
Depth: Ranges from 21.8 to 24.1 meters.
Primary Use: Dredged material.
Period of Use: Three years.
Restrictions: Disposal shall be limited to dredged material from the Tampa Harbor Project.

(15) New York Bight Dredged Material Disposal Site—Region II.
Location:
40°23′48″ N., 73°51′28″ W.;
40°21′48″ N., 73°50′00″ W.;
40°21′48″ N., 73°51′28″ W.;
40°23′48″ N., 73°50′00″ W.
Size: 2.2 square nautical miles.
Depth: Ranges from 16 to 29 meters.
Use Restricted to Disposal of: Dredged materials.
Period of Use: Continuing use, subject to volumetric restriction as noted below.
Restriction: Disposal shall be limited to 100 million cubic yards of dredged materials generated in the Port of New York and New Jersey and nearby harbors. Dumping within the area described by the following coordinates shall be limited to projects determined by the Corps and EPA to demonstrate a specific need, such as research or final capping. 40°23′48″ N., 73°51′28″ W.; 40°23′23″ N., 73°51′28″ W.; 40°23′23″ N., 73°51′06″ W.; 40°23′48″ N., 73°51′06″ W. Dumping in the southeast quadrant of the site shall not be authorized except as part of a research project on capping.

(16) Gulf of Mexico Platform jacket site—Region VI.
Location:
27d 39′44.665″ N, 91d 10′03.059″ W;
27d 39′42.304″ N, 91d 07′06.927″ W;
27d 37′05.471″ N, 91d 07′09.610″ W;
27d 37′07.828″ N, 91d 10′05.672″ W.
Size: 3 statute miles on the side (9 square statute miles total area).
Depth: 600 fathoms.
Primary Use: One-time disposal of damaged platform jacket. Period of Use: Until the one-time dump of the damaged jacket is concluded; however, the period of use shall not exceed three years from the date of publication of this Notice.

(17) Deepwater Industrial Wastes Dump Site—Region II.
Location (center point):
Latitude—38°45′00″N.
Longitude—72°20′00″W.
Size: Circular with a radius of 3.0 nautical miles—28.3 square nautical miles.
Depth: Ranges from 2,250 to 2,750 meters.
Use Restricted To: Aqueous industrial materials.
Period of Use: Continuing use.
Definition: Aqueous industrial materials are defined as those wastes generated by a manufacturing or processing plant (i) with solid concentrations sufficiently low so that waste material is dispersed within the upper water column; or (ii) neutrally buoyant or slightly denser than seawater, such that, upon mixing with seawater, the material does not float.

(18) Deepwater Municipal Sludge Dump Site—Region II.
Location:
Latitude—38°40′00″ to 39°00′00″N;
Longitude—72°00′00″ to 72°05′00″W.
Size: 100 square nautical miles.
Depth: Ranges from 2,250 to 2,750 meters.
Use Restricted To: Municipal sewage treatment sludge.
Period of Use: Five years after commencement of dumping of municipal sewage treatment sludge at the site.
Restriction: Municipal sludges generated at Publicly Owned or Operated Treatment Works (POTW's). Biologically treated industrial waste sludges are to be excluded.

(19) Jacksonville Dredged Material Site—Region IV.

Location:
30°21′30″ N., 81°18′34″ W.;
30°21′30″ N., 81°17′26″ W.;
30°20′30″ N., 81°17′26″ W.;
30°20′30″ N., 81°18′34″ W.

Size: One square nautical mile.

Depth: Ranges from 12 to 16 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Jacksonville, Florida, area.

(20) Galveston Dredged Material Site—Region VI.

Location:
29°18′00″ N., 94°39′30″ W.;
29°15′54″ N., 94°37′06″ W.;
29°14′24″ N., 94°38′42″ W.;
29°16′54″ N., 94°41′30″ W.

Size: 6.6. square nautical miles.

Depth: Ranges from 10 to 15.5 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Galveston, Texas, area.

(21) Drilling muds and cuttings site—Region IX.

Center point location: 33°34′30″ N latitude, 118°27′30″ W longitude.

Size: A circle with a diameter of 3.0 nautical miles.

Depth: Approximately 485 fathoms (2910 feet).

Primary Use: Drilling muds and cuttings.

Period of Use: 3 years from effective date of site designation.

Volumes: To be determined by EPA Regional Administrator, Region IX.

Restriction: Disposal shall be limited to water-based drilling muds and cuttings which meet the requirements of the Ocean Dumping Evaluation Criteria of 40 CFR Part 227. Permittee(s) must implement monitoring program acceptable to EPA Regional Administrator responsible for management of the site.

(22) San Francisco Channel Bar Dredged Material Site—Region IX.

Location:
37°44′55″ N, 122°37′18″ W;
37°45′45″ N, 122°34′24″ W;
37°44′24″ N, 122°37′06″ W;
37°45′15″ N, 122°34′12″ W.

Size: 4,572 x 914 meters.

Depth: Ranges from 11 to 14.3 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to material from required dredging operations at the entrance of the San Francisco main ship channel which is composed primarily of sand having grain sizes compatible with naturally occurring sediments at the disposal site and containing approximately 5 percent of particles having grain sizes finer than that normally attributed to very fine sand (.075 millimeters). Other dredged materials meeting the requirements of 40 CFR 227.13 but having smaller grain sizes may be dumped at this site only upon completion of an appropriate case-by-case evaluation of the impact of such material on the site which demonstrates that such impact will be acceptable.

(23) Mouth of Columbia River Dredged Material Site A—Region X.

Location:
46d 13′ 03″ N., 124d 06′ 17″ W.;
46d 12′ 50″ N., 124d 05′ 55″ W.;
46d 12′ 13″ N., 124d 06′ 43″ W.;
46d 12′ 26″ N, 124d 07′ 05″ W.

Size: 0.27 square nautical miles.

Depth: Ranges from 14–25 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(24) Mouth of Columbia River Dredged Material Site B—Region X.

Location:
46d 14′ 37″ N., 124d 10′ 34″ W.;
46d 13′ 53″ N., 124d 10′ 01″ W.;
46d 13′ 43″ N., 124d 10′ 26″ W.;
46d 14′ 28″ N., 124d 10′ 59″ W.

Size: 0.25 square nautical miles.

Depth: Ranges from 24–39 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(25) Mouth of Columbia River Dredged Material Site E—Region X.

Location:
46d 15′ 43″ N., 124d 05′ 21″ W.;
46d 15′ 36″ N., 124d 05′ 11″ W.;
46d 15′ 11″ N., 124d 05′ 53″ W.;
46d 15′ 18″ N., 124d 06′ 03″ W.

Size: 0.08 square nautical miles.

Depth: Ranges from 16–21 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(26) Mouth of Columbia River Dredged Material Site F—Region X.

Location:
46d 12′ 12″ N., 124d 09′ 00″ W.;
46d 12′ 00″ N., 124d 08′ 42″ W.;
46d 11′ 48″ N., 124d 09′ 00″ W.;
46d 12′ 00″ N., 124d 09′ 18″ W.

Size: 0.08 square nautical miles.

Depth: Ranges from 38–42 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(27) Coos Bay Dredged Material Site E—Region X.

Location:

43d 21′ 59″ N., 124d 22′ 45″ W.;
43d 21′ 48″ N., 124d 21′ 59″ W.;
43d 21′ 35″ N., 124d 22′ 05″ W.;
43d 21′ 46″ N, 124d 22′ 51″ W.

Size: 0.13 square nautical mile.

Depth: Averages 17 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material in the Coos Bay area of type 1. as defined in the site designation final EIS.

(28) Coos Bay Dredged Material Site F—Region X.

Location:

43d 22′ 44″ N., 124d 22′ 18″ W.;
43d 22′ 29″ N., 124d 21′ 34″ W.;
43d 22′ 16″ N., 124d 21′ 42″ W.;
43d 22′ 31″ N., 124d 22′ 26″ W.

Size: 0.13 square nautical mile.

Depth: Averages 24 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material in the Coos Bay area of type 1, as defined in the site designation final EIS.

(29) Coos Bay Dredged Material Site H—Region X.

Location:

43d 23′ 53″ N., 124d 22′ 48″ W.;
43d 23′ 42″ N., 124d 23′ 01″ W.;
43d 24′ 16″ N., 124d 23′ 26″ W.;
43d 24′ 05″ N., 124d 23′ 38″ W.

Size: 0.13 square nautical mile.

Depth: Averages 55 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material in the Coos Bay area of type 2 and 3, as defined in the site designation final EIS.

(30) Fernandina Beach, Florida Dredged Material Disposal Site—Region IV.

Location:

30°33′00″ N.; 81°16′52″ W.
30°31′00″ N.; 81°16′52″ W.
30°31′00″ N.; 81°19′08″ W.
30°33′00″ N.; 81°19′08″ W.

Size: 4 square nautical miles

Depth: Average 16 meters

Primary use: Dredged Material

Period of Use: Continuing use

Restrictions: Disposal shall be limited to dredged material which meets the criteria given in the Ocean Dumping Regulations, Part 227.

(31) Morehead City, North Carolina, Dredged Material Disposal Site-Region IV.

Location:

34°38′30″ N., 76°45′0″ W.;
34°38′30″ N., 76°41′42″ W.;
34°38′09″ N., 76°41′0″ W;
34°36′0″ N., 76°41′0″ W., 34°36′0″ N., 76°45′0″ W.

Size: 8 square nautical miles.

Depth: Average 12.0 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Morehead City Harbor, North Carolina area. All material disposed must satisfy the requirements of the ocean dumping regulations.

(32) Savannah, GA, Dredged Material Disposal Site—Region IV.

Location:

31d, 55′ 53″N., 80d 44′ 20″W.;
31d 57′ 55″N., 80d 46′ 48″W.;
31d 57′ 55″N., 80d 44′ 20″W.;
31d 55′ 53″N., 80d 46′ 48″W.

Size: 4.26 square nautical miles.

Depth: Averages 11.4 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Savannah Harbor area.

(33) Charleston, SC, Dredged Material Disposal Site—Region IV.

Location:

32d 40′ 27″N., 79d 47′ 22″W.;
32d 39′ 04″N., 79d 44′ 25″W.;
32d 38′ 07″N., 79d 45′ 03″W.;
32d 39′ 30″N., 79d 48′ 00″W.

Size: 3 square nautical miles.

Depth: Averages 11 meters.

Primary Use: Dredged material.

Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredged material from the Charleston Harbor area.

(34) Charleston, SC, Harbor Deepening Project Dredged Material Disposal Site—Region IV.

Location:

32d 38′ 06″N., 79d 41′ 57″W.;
32d 40′ 42″N., 79d 47′ 30″W.;
32d 39′ 04″N., 79d 49′ 21″W.;
32d 36′ 28″N., 79d 43′ 48″W.

Size: 11.8 square nautical miles.

Depth: Averages 11 meters.

Primary Use: Dredged material from the Charleston Harbor deepening project.

Period of Use: Not to exceed seven years from the initiation of the Charleston Harbor deepening project.

Restriction: Disposal shall be limited to dredged material from the Charleston Harbor deepening project.

(35) Wilmington, NC, Dredged Material Disposal Site—Region IV.

Location:

33d 49′ 30″N., 78d 03′ 06″W.;

33d 48' 18"N., 78d 01' 39"W.;
33d 47' 19"N., 78d 02' 48"W.;
33d 48' 30"N., 78d 04' 16"W.
Size: 2.3 square nautical miles.
Depth: Averages 13 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from Wilmington Harbor area.
(36) Nome—West Site—Region X.

Location:
64° 30' 04" N., 165° 25' 52" W.;
64° 29' 18" N., 165° 26' 04" W.;
64° 29' 13" N., 165° 25' 22" W.;
64° 29' 54" N., 165° 24' 45" W.
Size: 0.30 square nautical miles.
Depth: Ranges from 1-11 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restrictions: Disposal shall be limited to dredged material from Nome, Alaska, and adjacent areas. Use will be coordinated with the City of Nome prior to dredging. Preference will be given to placing any material in the inner third of the site to supplement littoral drift, as needed.

(37) Nome—East Site—Region X.

Location:
64° 29' 54" N., 165° 24' 41" W.;
64° 29' 45" N., 165° 23' 27" W.;
64° 28' 57" N., 165° 23' 29" W.;
64° 29' 07" N., 165° 24' 25" W.
Size: 0.37 square nautical miles.
Depth: Ranges from 1-12 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restrictions: Disposal shall be limited to dredged material from Nome, Alaska, and adjacent areas. Use will be coordinated with the City of Nome prior to dredging.
(38)—(39) [Reserved]
(40) Georgetown Harbor; Georgetown, South Carolina; Ocean Dredged Material Disposal Site—Region IV.
Location:
33°11'18" N.;
79°07'20" W.;
33°11'18" N.;
79°05'23" W.;
33°10'38" N.;
79°05'24" W.;
33°10'38" N.;
79°07'21" W.

Size: 1 square nautical mile.
Depth: 6 to 11 meter range.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to suitable dredged material from the greater Georgetown, South Carolina area.
(41) Brunswick Harbor; Brunswick, Georgia; Ocean Dredged Material Disposal Site ______ Region IV.
Location:
31°02'35" N., 81°17'40" W.;
31°02'35" N., 81°16'30" W., 31°00'30" N., 81°16'30" W., 31°00'30" N., 81°17'42" W;
Size: Approximately 2 square nautical miles.
Depth: Average 9 meters.
Primary use: Dredged material.
Period of use: Continuing use.
Restriction: Disposal shall be limited to suitable dredged material from the greater Brunswick, Georgia, vicinity.
(42) Sabine-Neches Dredged Material Site 1—Region VI.
Location:
29°28'03" N., 93°41'14" W.;
29°26'11" N., 93°41' 14" W.;
29°26'11" N., 93°44'11" W.
Size: 2.4 square nautical miles.
Depth: Ranges from 11-13 meters.
Primary Use: Dredged material.
Period of Use: Continuing Use.
Restriction: Disposal shall be limited to dredged material from the Sabine-Neches area.
(43) Sabine-Neches Dredged Material Site 2—Region VI.
Location:
29°30'41" N., 93°43'49" W.;
29°28'42" N., 93°41'33" W.;
29°28'42" N., 93°44'49" W.;
29°30'08" N., 93°46'27" W.
Size: 4.2 square nautical miles.
Depth: Ranges from 9-13 meters.
Primary Use: Dredged material.
Period of Use: Continuing Use.
Restriction: Disposal shall be limited to dredged material from the Sabine-Neches area.
(44) Sabine-Neches Dredged Material Site 3—Region VI.
Location:
29°34'24" N., 93°48'13" W.;
29°32'47" N., 93°46'16" W.;
29°32'06" N., 93°46'29" W.;
29°31'42" N., 93°48'16" W.;
29°32'59" N., 93°49'48" W.
Size: 4.7 square nautical miles.
Depth: 10 meters.
Primary Use: Dredged material.
Period of Use: Continuing Use.
Restriction: Disposal shall be limited to dredged material from the Sabine-Neches area.
(45) Sabine-Neches Dredged Material Site 4—Region VI.
Location:
29°38'09" N., 93°49'23" W.;
29°35'53" N., 93°48'18" W.;
29°35'06" N., 93°50'24" W.;
29°36'37" N., 93°51'09" W.;
29°37'00" N., 93°50'06" W.;
29°37'46" N., 93°50'26" W.
Size: 4.2 square nautical miles.
Depth: Ranges from 5-9 meters.
Primary Use: Dredged material.
Period of Use: Continuing Use.

Restriction: Disposal shall be limited to dredged material from the Sabine-Neches area.

(46) [Reserved]

(47) Portland, Maine, Dredged Material Disposal Site—Region 1

Location:

43°33'36" N, 70°02'42" W;
43°33'36" N, 70°01'18" W;
43°34'36" N, 70°02'42" W;
43°34'36" N, 70°01'18" W;

Size: 1 square nautical mile.
Depth: 50 meters.
Primary Use: Dredged material.
Period of Use: Continuing Use.
Restrictions: Disposal shall be limited to dredged material.

(48) Pensacola, Florida Dredged Material Disposal Site—Region IV.

Location:

30°17'24" N., 87°18'30" W.
30°17'00" N., 87°19'50" W.
30°15'36" N., 87°17'48" W.
30°15'15" N., 87°19'18" W.

Size: 2.48 nmi².
Depth: Average 11 m.
Primary use: Dredged Material.
Period of use: Continuing use.
Restrictions: Disposal shall be limited to dredged materials which are shown to be predominantly sand (defined by median grain size greater than 0.125 mm and a composition of less than 10% fines) and meet the Ocean Dumping Criteria.

(49) Mobile, Alabama Dredged Material Disposal Site—Region IV.

Location:

30°10'00" N., 88°07'42" W.
30°10'24" N., 88°05'12" W.
30°09'24" N., 88°04'42" W.
30°08'30" N., 88°05'12" W.
30°08'30" N., 88°08'12" W.

Size: 4.8 nmi².
Depth: Average 14 m.
Primary use: Dredged materials.
Period of use: Continuing use.
Restrictions: Disposal shall be limited to dredged materials which meet the Ocean Dumping Criteria.

(50) Gulfport, Mississippi Dredged Material Disposal Sites—Region IV.

Location: Eastern Site

30°11'10" N., 88°58'24" W.
30°11'12" N., 88°57'30" W.
30°07'36" N., 88°54'24" W.
30°07'24" N., 88°54'48" W.

Western Site

30°12'00" N., 89°00'30" W.
30°12'00" N., 88°59'30" W.
30°11'00" N., 89°00'00" W.
30°07'00" N., 88°56'30" W.
30°06'36" N., 88°57'00" W.
30°10'30" N., 89°00'36" W.

Size: Eastern—2.47 nmi². Western—5.2 nmi².
Depth: Eastern—9.1 m. Western—8.2 m.
Primary use: Both sites—Dredged material.
Period of use: Both sites—Continuing use.
Restrictions: Disposal shall be limited to dredged materials which meet the Ocean Dumping Criteria.

(51) Calcasieu Dredged Material Site 1—Region VI.

Location:

29d 45' 39" N, 93d 19' 36" W;
29d 42' 42" N, 93d 19' 06" W;
29d 42' 36" N, 93d 19" 48" W;
29d 44' 42" N, 93d 20' 12" W;
29d 44' 42" N, 93d 20' 24" W;
29d 45' 27" N, 93d 20' 33" W.

Size: 1.76 square nautical miles
Depth: Ranges from 2-8 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.

(52) Calcasieu Dredged Material Site 2—Region VI.

Location:

29d 44' 31" N, 93d 20' 43" W;
29d 39' 45" N, 93d 19' 56" W;
29d 39' 34" N, 93d 20' 46" W;
29d 44' 25" N, 93d 21' 33" W.

Size: 3.53 square nautical miles.
Depth: Ranges from 2-11 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.

(53) Calcasieu Dredged Material Site 3—Region VI.

Location:

29d 37' 50" N, 93d 19' 37" W;
29d 37' 25" N, 93d 19' 33" W;
29d 33' 55" N, 93d 16" 23" W;
29d 33' 49" N, 93d 16" 25" W;
29d 30' 59" N, 93d 13' 51" W;
29d 29' 10" N, 93d 13' 49" W;
29d 29' 05" N, 93d 14' 23" W;
29d 30' 49" N, 93d 14' 25" W;
29d 37' 26" N, 93d 20' 24" W;
29d 37' 44" N, 93d 20' 27" W.

Size: 5.88 square nautical miles.
Depth: Ranges from 11-14 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.

(54) San Juan Harbor, PR Dredged Material Site—Region II

Location:

18d 30'10" N°, 66d 09'31" W°;
18d 30'10" N°, 66d 08'29" W°;
18d 31'10" N°, 66d 08'29" W°;
18d 31'10" N°, 66d 09'31" W°.

Size: 0.98 square nautical miles.
Depth: Ranges from 200-400 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.

Restriction: Disposal shall be limited to dredge material from the Port of San Juan, Puerto Rico, and coastal areas within 20 miles of said port entrance.

(55) Dam Neck, Virginia, Dredged Material Disposal Site—Region III.

Location:
36°51'24.1" N., 75°54'41.4" W.;
36°51'24.1" N., 75°53'02.9" W.;
36°50'52.0" N., 75°52'49.0" W.;
36°46'27.4" N., 75°51'39.2" W.;
36°46'27.5" N., 75°54'19.0" W.;
36°50'05.0" N., 75°54'19.0" W.

Size: 8 square nautical miles.
Depth: Averages 11 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from the mouth of the Chesapeake Bay.

(56) Arecibo Harbor, PR Dredged Material Disposal Site—Region II.

Location:
18°31'00" N., 66°43'47" W.;
18°31'00" N., 66°42'45" W.;
18°30'00" N., 66°42'45" W.;
18°30'00" N., 66°43'47" W.

Size: Approximately 1 square nautical mile.
Depth: Ranges from 101 to 417 meters.
Primary Use: Dredged material disposal.
Period of Use: Continuing Use.
Restrictions: Disposal shall be limited to dredged material from Arecibo Harbor, PR.

(57) Mayaguez Harbor, PR Dredged Material Disposal Site—Region II.

Location:
18°15'30" N., 67°16'13" W.;
18°15'30" N., 67°15'11" W.;
18°14'30" N., 67°15'11" W.;
18°14'30" N., 67°16'13" N.

Size: Approximately 1 square nautical mile.
Depth: Ranges from 351 to 384 meters.
Primary Use: Dredged material disposal.
Period of Use: Continuing Use.
Restrictions: Disposal shall be limited to dredged material from Mayaguez Harbor, PR.

(58) Ponce Harbor, PR Dredged Material Disposal Site—Region II.

Location:
17°54'00" N., 66°37'43" W.;
17°54'00" N., 66°36'41" W.;
17°53'00" N., 66°36'41" W.;
17°53'00" N., 66°37'43" W.

Size: Approximately 1 square nautical mile.
Depth: Ranges from 329 to 457 meters.
Primary Use: Dredged material disposal.
Period of Use: Continuing Use.
Restrictions: Disposal shall be limited to dredged material from Ponce Harbor, PR.

(59) Yabucoa Harbor, PR Dredged Material Disposal Site—Region II.

Location:
18°03'42" N., 65°42'49" W.;
18°03'42" N., 65°41'47" W.;
18°02'42" N., 65°41'47" W.;
18°02'42" N., 65°42'49" N.

Size: Approximately 1 square nautical mile.
Depth: Ranges from 549 to 914 meters.
Primary Use: Dredged material disposal.
Period of Use: Continuing Use.
Restrictions: Disposal shall be limited to dredged material from Yabucoa Harbor, PR.

(60)—(69) [Reserved]

(70) Homeport Project Dredged Material Site—Region VI.

Location:
27°47'42" N., 97°00'12" W., 27°47'15" N., 96°59'25" W., 27°46'17" N., 97°01'12" W., 27°45'49" N., 97°00'25" W.

Size: 1.4 square miles.
Depth: Ranges from 45-55 feet.
Primary Use: Dredged material.
Period of Use: 50 years.
Restriction: Disposal shall be limited to dredged material from the U.S. Navy Homeport Project, Corpus Christi/Ingleside, Texas.

(71) [Reserved]

(72) Pensacola, Florida; Ocean Dredged Material Disposal Site—Region IV, *i.e.* the Pensacola (offshore) Ocean Dredged Material Disposal Site.

Location:

30°08'50" N.,	87°19'30" W.;
30°08'50" N.,	87°16'30" W.;
30°07'05" N.,	87°16'30" W.;
30°07'05" N.,	87°19'30" W.

Size: Approximately 6 square statute miles.
Depth: Ranges from approximately 65 to 80 feet.
Primary Use: Dredged Material.
Period of Use: Continuing Use.
Restriction: Disposal is restricted to predominantly fine-grained dredged material from the greater Pensacola, Florida area that meets the Ocean Dumping Criteria, but is not suitable for beach nourishment or disposal in the existing, EPA-designated Pensacola (near shore) ODMDS. The Pensacola (nearshore) ODMDS (§ 228.12(b)(48)) is restricted to suitable dredged material with a median grain size >0.125 mm and a composition of <10% fines.

(73) Southwest Pass-Mississippi River, Louisiana—Region VI Location: 28°54'12" N., 89°27'15" W.; 28°54'12" N., 89°26'00" W.; 28°51'00" N., 89°27'15" W.; 28°51°00" N., 89°26'00" W.

Size: 3.44 square nautical miles.
Depth: Ranges from 2.7 to 32.2 meters.
Primary Use: Dredged material.
Period of Use: Continuing use.
Restriction: Disposal shall be limited to dredged material from the vicinity of the Southwest Pass Channel.

[42 FR 2482, Jan. 11, 1977]

EDITORIAL NOTES: 1. For FEDERAL REGISTER citations affecting § 228.12, see the List of CFR Sections Affected in the Finding Aids section of this volume.

2. The following interim dredged material sites became approved ocean dumping sites when EPA published final rules in the FEDERAL REGISTER. These sites, formerly found in paragraph (a), are now found in paragraph (b) of § 228.12:

Interim site	Paragraph
Portland, ME	(a)(1)(ii)(A), (a)(3)
San Juan, PR	(a)(1)(ii)(B), (a)(3)
Charleston/Savannah/Wilmington	(a)(1)(ii)(M)
Mouth of Columbia River, OR	(a)(1)(ii)(O), (a)(3)
Sabine Neches Waterway, TX	(a)(3)

At a later date, EPA will publish documents in the FEDERAL REGISTER correctly removing these interim sites from paragraph (a).

§ 228.13 Guidelines for ocean disposal site baseline or trend assessment surveys under section 102 of the Act.

The purpose of a baseline or trend assessment survey is to determine the physical, chemical, geological, and biological structure of a proposed or existing disposal site at the time of the survey. A baseline or trend assessment survey is to be regarded as a comprehensive synoptic and representative picture of existing conditions; each such survey is to be planned as part of a continual monitoring program through which changes in conditions at a disposal site can be documented and assessed. Surveys will be planned in coordination with the ongoing programs of NOAA and other Federal, State, local, or private agencies with missions in the marine environment. The field survey data collection phase of a disposal site evaluation or designation study shall be planned and conducted to obtain a body of information both representative of the site at the time of study and obtained by techniques reproducible in precision and accuracy in future studies. A full plan of study which will provide a record of sampling, analytical, and data reduction procedures must be developed, documented and approved by the EPA management authority. Plans for all surveys which will produce information to be used in the preparation of environmental impact statements will be approved by the Administrator or his designee. This plan of study also shall be incorporated as an appendix into a technical report on the study, together with notations describing deviations from the plan required in actual operations. Relative emphasis on individual aspects of the environment at each site will depend on the type of wastes disposed of at the site and the manner in which such wastes are likely to affect the local environment, but no major feature of the disposal site may be neglected. The observations made and the data obtained are to be based on the information necessary to evaluate the site for ocean dumping. The parameters measured will be those indicative, either directly or indirectly, of the immediate and long-term impact of pollutants on the environment at the disposal site and adjacent land or water areas. An initial disposal site evaluation or designation study should provide an immediate baseline appraisal of a particular site, but it should also be regarded as the first of a series of studies to be continued as long as the site is used for waste disposal.

(a) *Timing.* Baseline or trend assessment surveys will be conducted with due regard for climatic and seasonal impact on stratification and other conditions in the upper layers of the water column. Where a choice of season is feasible, trend assessment surveys should be made during those months when pollutant accumulation within disposal sites is likely to be most severe, or when pollutant impact within disposal sites is likely to be most noticeable.

(1) Where disposal sites are near large riverine inflows to the ocean, surveys will be done with due regard for the seasonal variation in river flow. In some cases several surveys at various river flows may be necessary before a site can be approved.

(2) When initial surveys show that seasonal variation is not significant and surveys at greater than seasonable intervals are adequate for characterizing a site, resurveys shall be carried out in climatic conditions as similar to those of the original surveys as possi-

ble, particularly in depths less than 200 meters.

(b) *Duration.* The actual duration of a field survey will depend upon the size and depth of the site, weather conditions during the survey, and the types of data to be collected. For example, for a survey of an area of 100 square miles on the continental shelf, including an average dump site and the region contiguous to it, an on-site operation would be scheduled for completion within one week of weather suitable for on-site operations. More on-site operating time may be scheduled for larger or highly complex sites.

(c) *Numbers and locations of sampling stations.* The numbers and locations of sampling stations will depend in part on the local bathymetry with minimum numbers of stations per site fixed as specified in the following sections. Where the bottom is smooth or evenly sloping, stations for water column measurements and benthic sampling and collections, other than trawls, shall be spaced throughout the survey area in a manner planned to provide maximum coverage of both the disposal site and contiguous control areas, considering known water movement characteristics. Where there are major irregularities in the bottom topography, such as canyons or gullies, or in the nature of the bottom, sampling stations for sediments and benthic communities shall be spaced to provide representative sampling of the major different features.

Sampling shall be done within the dump site itself and in the contiguous area. Sufficient control stations outside a disposal site shall be occupied to characterize the control area environment at least as well as the disposal site itself. Where there are known persistent currents, sampling in contiguous areas shall include at least two stations downcurrent of the dump site, and at least two stations upcurrent of the site.

(d) *Measurements in the water column at and near the dump site*—(1) *Water quality parameters measured.* These shall include the major indicators of water quality, particularly those likely to be affected by the waste proposed to be dumped. Specifically included at all stations are measurements of temperature, dissolved oxygen, salinity, suspended solids, turbidity, total organic carbon, pH, inorganic nutrients, and chlorophyll *a.*

(i) At one station near the center of the disposal site, samples of the water column shall be taken for the analysis of the following parameters: Mercury, cadmium, copper, chromium, zinc, lead, arsenic, selenium, vanadium, beryllium, nickel, pesticides, petroleum hydrocarbons, and persistent organohalogens. These samples shall be preserved for subsequent analysis by or under the direct supervision of EPA laboratories in accordance with the approved plan of study.

(ii) These parameters are the basic requirements for all sites. For the evaluation of any specific disposal site additional measurements may be required, depending on the present or intended use of the site. Additional parameters may be selected based on the materials likely to be in wastes dumped at the site, and on parameters likely to be affected by constituents of such wastes. Analysis for other constituents characteristic of wastes discharged to a particular disposal site, or of the impact of such wastes on water quality, will be included in accordance with the approved plan of study.

(2) *Water quality sampling requirements.* The number of samples collected from the water column should be sufficient to identify representative changes throughout the water column such as to avoid short-term impact due to disposal activities. The following key locations should be considered in selecting water column depths for sampling:

(i) Surface, below interference from surface waves;

(ii) Middle of the surface layer;

(iii) Bottom of the surface layer;

(iv) Middle of the thermocline or halocline, or both if present;

(v) Near the top of the stable layer beneath a thermocline or halocline;

(vi) Near the middle of a stable layer;

(vii) As near the bottom as feasible;

(viii) Near the center of any zone showing pronounced biological activity or lack thereof.

In very shallow waters where only a few of these would be pertinent, as a minimum, surface, mid-depth and bottom samples shall be taken, with samples at additional depths being added as indicated by local conditions. At disposal sites far enough away from the influence of major river inflows, ocean or coastal currents, or other features which might cause local perturbations in water chemistry, a minimum of 5 water chemistry stations should be occupied within the boundaries of a site. Additional stations should be added when the area to be covered in the survey is more than 20 square miles or when local perturbations in water chemistry may be expected because of the presence of one of the features mentioned above. In zones where such impacts are likely, stations shall be distributed so that at least 3 stations are occupied in the transition from one stable regime to another. Each water column chemistry station shall be replicated a minimum of 2 times during a survey except in waters over 200 meters deep.

(3) *Water column biota.* Sampling stations for the biota in the water column shall be as near as feasible to stations used for water quality; in addition at least two night-time stations in the disposal site and contiguous area are required. At each station vertical or oblique tows with appropriately-meshed nets shall be used to assess the microzooplankton, the nekton, and the macrozooplankton, Towing times and distances shall be sufficient to obtain representative samples of organisms near water quality stations. Organisms shall be sorted and identified to taxonomic levels necessary to identify dominant organisms, sensitive or indicator organisms, and organism diversity. Tissue samples of representative species shall be analyzed for pesticides, persistent organohalogens, and heavy metals. Discrete water samples shall also be used to quantitatively assess the phytoplankton at each station.

These requirements are the minimum necessary in all cases. Where there are discontinuities present, such as thermoclines, haloclines, convergences, or upwelling, additional tows shall be made in each water mass as appropriate.

(e) *Measurements of the benthic region*—(1) *Bottom sampling.* Samples of the bottom shall be taken for both sediment composition and structure, and to determine the nature and numbers of benthic biota.

(i) At each station sampling may consist of core samples, grab samples, dredge samples, trawls, and bottom photography or television, where available and feasible, depending on the nature of the bottom and the type of disposal site. Each type of sampling shall be replicated sufficiently to obtain a representative set of samples. The minimum numbers of replicates of successful samples at each continental shelf station for each type of device mentioned above are as follows:

Cores	3.
Grabs	5.
Dredge	3.
Trawl	20-min. tow.

Lesser numbers of replicates may be allowed in water deeper than 200 meters, at those sites where pollution impacts on the bottom are unlikely in the judgment of the EPA management authority.

(ii) Selection of bottom stations will be based to a large extent on the bottom topography and hydrography as determined by the bathymetric survey. On the continental shelf, where the bottom has no significant discontinuities, a bottom station density of at least three times the water column stations is recommended, depending on the type of site being evaluated. Where there are significant differences in bottom topography, additional stations shall be occupied near the discontinuity and on each side of it. Beyond the continental shelf, lesser densities may be used.

(2) *Bathymetric survey.* Sufficient tracklines shall be run to develop complete bottom coverage of bathymetry with reasonable assurance of accurate coverage of bottom topography, with trackline direction and spacing as close as available control allows. The site itself is to be developed at the greatest density possible, with data to be collected to a suitable distance about the

site as is required to identify major changes in bathymetry which might affect the site. Specifications for each bathymetric survey will vary, depending on control, bottom complexity, depths, equipment, and map scale required. In most cases, a bathymetric map at a scale of 1:25,000 to 1:10,000 will be required, with a minimum of 1-5 meter contour interval except in very flat areas. When the foregoing bathymetric detail is available from recent surveys of the disposal site, bathymetry during a baseline or trend assessment survey may be limited to sonar profiles of bathymetry on transects between sampling stations.

(3) *Nature of bottom.* The size distribution of sediments, mineral character and chemical quality of the bottom will be determined to a depth appropriate for the type of bottom. The following parameters will be measured at all stations: Particle size distribution, major mineral constituents, texture, settling rate, and organic carbon.

(i) At several stations near the center of the disposal site, samples of sediments shall be taken for the analysis of the following parameters: Mercury, cadmium, copper, chromium, zinc, lead, arsenic, selenium, vanadium, beryllium, nickel, pesticides, persistent organohalogens, and petroleum hydrocarbons. These samples shall be preserved for subsequent analysis by or under the direct supervision of EPA laboratories in accordance with the approved plan of study.

(ii) These parameters are the basic requirements for all sites. For the evaluation of any specific disposal site additional measurements may be required, depending on the present or intended use of the site. Additional parameters may be selected based on the materials likely to be in wastes dumped at the site, and on parameters likely to be affected by constituents of such wastes. Such additional parameters will be selected by the EPA management authority.

(4) *Benthic biota.* This shall consist of a quantitative and qualitative evaluation of benthic communities including macroinfauna and macroepifauna, meiobenthos, and microbenthos, and should include an appraisal, based on existing information, of the sensitivity of indigenous species to the waste proposed to be discharged. Organisms, shall be sorted, and identified to taxonomic levels necessary to identify dominant organisms, sensitive or indicator organisms, and organism diversity. Tissue samples of the following types of organisms shall be analyzed for persistent organohalogens, pesticides, and heavy metals:

(i) A predominant species of demersal fish;

(ii) The most abundant macroinfaunal species; and

(iii) A dominant epifaunal species, with particular preference for a species of economic importance.

(f) *Other measurements*—(1) *Hydrodynamic features.* The direction and speed of water movement shall be characterized at levels appropriate for the site and type of waste to be dumped. Where depths and climatic conditions are great enough for a thermocline or halocline to exist, the relationship of water movement to such a feature shall be characterized.

(i) *Current measurements.* When current meters are used as the primary source of hydrodynamic data, at least 4 current meter stations with at least 3 meters at depths appropriate for the observed or expected discontinuities in the water column should be operated for as long as possible during the survey. Where feasible, current meters should be deployed at the initiation of the survey and recovered after its completion. Stations should be at least a mile apart, and should be placed along the long axis of the dumping site. For dumping sites more than 10 miles along the long axis, one current meter station every 5 miles should be operated. Where there are discontinuities in surface layers, e.g., due to land runoff, stations should be operated in each water mass.

(ii) *Water mass movement.* Acceptable methods include: dye, drogues, surface drifters, side scan sonar, bottom drifters, and bottom photography or television. When such techniques are the primary source of hydrodynamic data, coverage should be such that all significant hydrodynamic features likely to affect waste movement are measured.

(2) *Sea state.* Observations of sea state and of standard meteorological parameters shall be made at 8-hour intervals.

(3) *Surface phenomena.* Observations shall be made of oil slicks, floating materials, and other visible evidence of pollution; and, where possible, collections of floating materials shall be made.

(g) *Survey procedures and techniques.* Techniques and procedures used for sampling and analysis shall represent the state-of-the-art in oceanographic survey and analytical practice. Survey plans shall specify the methods to be used and will be subject to approval by EPA.

(h) *Quality assurance.* The EPA management authority may require that certain samples be submitted on a routine basis to EPA laboratories for analysis as well as being analyzed by the surveyor, and that EPA personnel participate in some field surveys.

PART 229—GENERAL PERMITS

Sec.
229.1 Burial at sea.
229.2 Transport of target vessels.
229.3 Transportation and disposal of vessels.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2489, Jan. 11, 1977, unless otherwise noted.

§ 229.1 Burial at sea.

(a) All persons subject to Title I of the Act are hereby granted a general permit to transport human remains from the United States and all persons owning or operating a vessel or aircraft registered in the United States or flying the United States flag and all departments, agencies, or instrumentalities of the United States are hereby granted a general permit to transport human remains from any location for the purpose of burial at sea and to bury such remains at sea subject to the following conditions:

(1) Except as herein otherwise provided, human remains shall be prepared for burial at sea and shall be buried in accordance with accepted practices and requirements as may be deemed appropriate and desirable by the United States Navy, United States Coast Guard, or civil authority charged with the responsibility for making such arrangements;

(2) Burial at sea of human remains which are not cremated shall take place no closer than 3 nautical miles from land and in water no less than one hundred fathoms (six hundred feet) deep and in no less than three hundred fathoms (eighteen hundred feet) from (i) 27°30'00" to 31°00'00" North Latitude off St. Augustine and Cape Canaveral, Florida; (ii) 82°20'00" to 84°00'00" West Longitude off Dry Tortugas, Florida; and (iii) 87°15'00" to 89°50'00" West Longitude off the Mississippi River Delta, Louisiana, to Pensacola, Florida. All necessary measures shall be taken to ensure that the remains sink to the bottom rapidly and permanently; and

(3) Cremated remains shall be buried in or on ocean waters without regard to the depth limitations specified in paragraph (a)(2) of this section provided that such burial shall take place no closer than 3 nautical miles from land.

(b) For purposes of this section and §§ 229.2 and 229.3, "land" means that portion of the baseline from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone, which is in closest proximity to the proposed disposal site.

(c) Flowers and wreaths consisting of materials which are readily decomposable in the marine environment may be disposed of under the general permit set forth in this section at the site at which disposal of human remains is authorized.

(d) All burials conducted under this general permit shall be reported within 30 days to the Regional Administrator of the Region from which the vessel carrying the remains departed.

§ 229.2 Transport of target vessels.

(a) The U.S. Navy is hereby granted a general permit to transport vessels from the United States or from any other location for the purpose of sinking such vessels in ocean waters in testing ordnance and providing related data subject to the following conditions:

(1) Such vessels may be sunk at times determined by the appropriate Navy official;

(2) Necessary measures shall be taken to insure that the vessel sinks to the bottom rapidly and permanently, and that marine navigation is not otherwise impaired by the sunk vessel;

(3) All such vessel sinkings shall be conducted in water at least 1,000 fathoms (6,000 feet) deep and at least 50 nautical miles from land, as defined in § 229.1(b); and

(4) Before sinking, appropriate measures shall be taken by qualified personnel at a Navy or other certified facility to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i) emptying of all fuel tanks and fuel lines to the lowest point practicable, flushing of such tanks and lines with water, and again emptying such tanks and lines to the lowest point practicable so that such tanks and lines are essentially free of petroleum, and (ii) removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution.

(b) An annual report will be made to the Administrator of the Environmental Protection Agency setting forth the name of each vessel used as a target vessel, its approximate tonnage, and the location and date of sinking.

§ 229.3 Transportation and disposal of vessels.

(a) All persons subject to Title I of the Act are hereby granted a general permit to transport vessels from the United States, and all departments, agencies, or instrumentalities of the United States are hereby granted a general permit to transport vessels from any location for the purpose of disposal in the ocean subject to the following conditions:

(1) Except in emergency situations, as determined by the U.S. Army Corps of Engineers and/or the U.S. Coast Guard, the person desiring to dispose of a vessel under this general permit shall, no later than 1 month prior to the proposed disposal date, provide the following information in writing to the EPA Regional Administrator for the Region in which the proposed disposal will take place:

(i) A statement detailing the need for the disposal of the vessel;

(ii) Type and description of vessel to be disposed of and type of cargo normally carried;

(iii) Detailed description of the proposed disposal procedures;

(iv) Information on the potential effect of the vessel disposal on the marine environment; and

(v) Documentation of an adequate evaluation of alternatives to ocean disposal (i.e., scrap, salvage, and reclamation).

(2) Transportation for the purpose of ocean disposal may be accomplished under the supervision of the District Commander of the U.S. Coast Guard or his designee.

(3) Except in emergency situations, as determined by the U.S. Army Corps of Engineers and/or the District Commander of the U.S. Coast Guard, appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i) emptying of all fuel lines and fuel tanks to the lowest point practicable, flushing of such lines and tanks with water, and again emptying such lines and tanks to the lowest point practicable so that such lines and tanks are essentially free of petroleum, and (ii) removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution.

(4) Except in emergency situations, as determined by the U.S. Army Corps of Engineers and/or the U.S. Coast Guard, the dumper shall, no later than 10 days prior to the proposed disposal date, notify the EPA Regional Administrator and the District Commander of the U.S. Coast Guard that the vessel has been cleaned and is available for inspection; the vessel may be transported for dumping only after EPA and the Coast Guard agree that the requirements of paragraph (a)(3) of this section have been met.

(5) Disposal of these vessels shall take place in a site designated on current nautical charts for the disposal of

wrecks or no closer than 22 kilometers (12 miles) from the nearest land and in water no less than 50 fathoms (300 feet) deep, and all necessary measures shall be taken to insure that the vessels sink to the bottom rapidly and that marine navigation is not otherwise impaired.

(6) Disposal shall not take place in established shipping lanes unless at a designated wreck site, nor in a designated marine sanctuary, nor in a location where the hulk may present a hazard to commercial trawling or national defense (see 33 CFR Part 205).

(7) Except in emergency situations, as determined by the U.S. Army Corps of Engineers and/or the U.S. Coast Guard, disposal of these vessels shall be performed during daylight hours only.

(8) Except in emergency situations, as determined by the U.S. Army Corps of Engineers and/or the District Commander of the U.S. Coast Guard, the Captain-of-the-Port (COTP), U.S. Coast Guard, and the EPA Regional Administrator shall be notified forty-eight (48) hours in advance of the proposed disposal. In addition, the COTP and the EPA Regional Administrator shall be notified by telephone at least twelve (12) hours in advance of the vessel's departure from port with such details as the proposed departure time and place, disposal site location, estimated time of arrival on site, and the name and communication capability of the towing vessel. Schedule changes are to be reported to the COTP as rapidly as possible.

(9) The National Ocean Survey, NOAA, 6010 Executive Blvd., Rockville, MD 20852, shall be notified in writing, within 1 week, of the exact coordinates of the disposal site so that it may be marked on appropriate charts.

PART 230—SECTION 404(b)(1) GUIDELINES FOR SPECIFICATION OF DISPOSAL SITES FOR DREDGED OR FILL MATERIAL

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Subpart I—Planning To Shorten Permit Processing Time

230.80 Advanced identification of disposal areas.

AUTHORITY: Secs. 404(b) and 501(a) of the Clean Water Act of 1977 (33 U.S.C. 1344(b) and 1361(a)).

SOURCE: 45 FR 85344, Dec. 24, 1980, unless otherwise noted.

Subpart A—General

§ 230.1 Purpose and policy.

(a) The purpose of these Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material.

(b) Congress has expressed a number of policies in the Clean Water Act. These Guidelines are intended to be consistent with and to implement those policies.

(c) Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.

(d) From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. The guiding principle should be that degradation or destruction of special sites may represent an irreversible loss of valuable aquatic resources.

§ 230.2 Applicability.

(a) These Guidelines have been developed by the Administrator of the Environmental Protection Agency in conjunction with the Secretary of the Army acting through the Chief of Engineers under section 404(b)(1) of the Clean Water Act (33 U.S.C. 1344). The Guidelines are applicable to the specification of disposal sites for discharges of dredged or fill material into waters of the United States. Sites may be specified through:

(1) The regulatory program of the U.S. Army Corps of Engineers under sections 404(a) and (e) of the Act (see 33 CFR Parts 320, 323 and 325);

(2) The civil works program of the U.S. Army Corps of Engineers (see 33 CFR 209.145 and section 150 of Pub. L. 94-587, Water Resources Development Act of 1976);

(3) Permit programs of States approved by the Administrator of the Environmental Protection Agency in accordance with section 404(g) and (h) of the Act (see 40 CFR Parts 122, 123 and 124);

(4) Statewide dredged or fill material regulatory programs with best management practices approved under section 208(b)(4)(B) and (C) of the Act (see 40 CFR 35.1560);

(5) Federal construction projects which meet criteria specified in section 404(r) of the Act.

(b) These Guidelines will be applied in the review of proposed discharges of dredged or fill material into navigable waters which lie inside the baseline from which the territorial sea is measured, and the discharge of fill material into the territorial sea, pursuant to the procedures referred to in paragraphs (a)(1) and (2) of this section. The discharge of dredged material into the territorial sea is governed by the Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. 92-532, and regulations and criteria issued pursuant thereto (40 CFR Parts 220 through 228).

(c) Guidance on interpreting and implementing these Guidelines may be prepared jointly by EPA and the

Corps at the national or regional level from time to time. No modifications to the basic application, meaning, or intent of these Guidelines will be made without rulemaking by the Administrator under the Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

§ 230.3 Definitions.

For purposes of this part, the following terms shall have the meanings indicated:

(a) The term "Act" means the Clean Water Act (also known as the Federal Water Pollution Control Act or FWPCA) Pub. L. 92-500, as amended by Pub. L. 95-217, 33 U.S.C. 1251, *et seq.*

(b) The term "adjacent"means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are "adjacent wetlands."

(c) The terms "aquatic environment" and "aquatic ecosystem" mean waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals.

(d) The term "carrier of contaminant" means dredged or fill material that contains contaminants.

(e) The term "contaminant" means a chemical or biological substance in a form that can be incorporated into, onto or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment, and includes but is not limited to the substances on the 307(a)(1) list of toxic pollutants promulgated on January 31, 1978 (43 FR 4109).

(f)—(g) [Reserved]

(h) The term "discharge point" means the point within the disposal site at which the dredged or fill material is released.

(i) The term "disposal site" means that portion of the "waters of the United States" where specific disposal activities are permitted and consist of a bottom surface area and any overlying volume of water. In the case of wetlands on which surface water is not present, the disposal site consists of the wetland surface area.

(j) [Reserved]

(k) The term "extraction site" means the place from which the dredged or fill material proposed for discharge is to be removed.

(l) [Reserved]

(m) The term "mixing zone" means a limited volume of water serving as a zone of initial dilution in the immediate vicinity of a discharge point where receiving water quality may not meet quality standards or other requirements otherwise applicable to the receiving water. The mixing zone should be considered as a place where wastes and water mix and not as a place where effluents are treated.

(n) The term "permitting authority" means the District Engineer of the U.S. Army Corps of Engineers or such other individual as may be designated by the Secretary of the Army to issue or deny permits under section 404 of the Act; or the State Director of a permit program approved by EPA under section 404(g) and section 404(h) or his delegated representative.

(o) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials not covered by the Atomic Energy Act, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. The legislative history of the Act reflects that "radioactive materials" as included within the definition of "pollutant" in section 502 of the Act means only radioactive materials which are not encompassed in the definition of source, byproduct, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, and regulated under the Atomic Energy Act. Examples of radioactive materials not covered by the Atomic Energy Act and, therefore, included within the term "pollutant", are radium and accelerator produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

(p) The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of an aquatic ecosystem.

(q) The term "practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(q-1) "Special aquatic sites" means those sites identified in Subpart E. They are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. (See § 230.10(a)(3))

(r) The term "territorial sea" means the belt of the sea measured from the baseline as determined in accordance with the Conventon on the Territorial Sea and the Contiguous Zone and extending seaward a distance of three miles.

(s) The term "waters of the United States" means:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under this definition;

(5) Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;

(6) The territorial sea;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

(t) The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

§ 230.4 Organization.

The Guidelines are divided into eight subparts. Subpart A presents those provisions of general applicability, such as purpose and definitions. Subpart B establishes the four conditions which must be satisfied in order to make a finding that a proposed discharge of dredged or fill material complies with the Guidelines. Section 230.11 of Subpart B, sets forth factual determinations which are to be considered in determining whether or not a proposed discharge satisfies the Subpart B conditions of compliance. Subpart C describes the physical and chemical components of a site and provides guidance as to how proposed discharges of dredged or fill material may affect these components. Subparts D through F detail the special characteristics of particular aquatic ecosystems in terms of their values, and the possible loss of these values due to discharges of dredged or fill material. Subpart G prescribes a number of physical, chemical, and biological evaluations and testing procedures to be used in reaching the required factual determinations. Subpart H details the means to prevent or mimimize adverse effects. Subpart I concerns advanced identification of disposal areas.

§ 230.5 General procedures to be followed.

In evaluating whether a particular discharge site may be specified, the permitting authority should use these Guidelines in the following sequence:

(a) In order to obtain an overview of the principal regulatory provisions of the Guidelines, review the restrictions on discharge in § 230.10(a) through (d), the measures to mimimize adverse impact of Subpart H, and the required factual determinations of § 230.11.

(b) Determine if a General permit (§ 230.7) is applicable; if so, the applicant needs merely to comply with its terms, and no further action by the permitting authority is necessary. Special conditions for evaluation of proposed General permits are contained in § 230.7. If the discharge is not covered by a General permit:

(c) Examine practicable alternatives to the proposed discharge, that is, not discharging into the waters of the U.S. or discharging into an alternative aquatic site with potentially less damaging consequences (§ 230.10(a)).

(d) Delineate the candidate disposal site consistent with the criteria and evaluations of § 230.11(f).

(e) Evaluate the various physical and chemical components which characterize the non-living environment of the candidate site, the substrate and the water including its dynamic characteristics (Subpart C).

(f) Identify and evaluate any special or critical characteristics of the candidate disposal site, and surrounding areas which might be affected by use of such site, related to their living communities or human uses (Subparts D, E, and F).

(g) Review Factual Determinations in § 230.11 to determine whether the information in the project file is sufficient to provide the documentation required by § 230.11 or to perform the pre-testing evaluation described in § 230.60, or other information is necessary.

(h) Evaluate the material to be discharged to determine the possibility of chemical contamination or physical incompatibility of the material to be discharged (§ 230.60).

(i) If there is a reasonable probability of chemical contamination, conduct the appropriate tests according to the section on Evaluation and Testing (§ 230.61).

(j) Identify appropriate and practicable changes to the project plan to minimize the environmental impact of the discharge, based upon the specialized methods of minimization of impacts in Subpart H.

(k) Make and document Factual Determinations in § 230.11.

(l) Make and document Findings of Compliance (§ 230.12) by comparing Factual Determinations with the requirements for discharge of § 230.10.

This outline of the steps to follow in using the Guidelines is simplified for purposes of illustration. The actual process followed may be iterative, with the results of one step leading to a reexamination of previous steps. The permitting authority must address all of the relevant provisions of the Guidelines in reaching a Finding of Compliance in an individual case.

§ 230.6 Adaptability.

(a) The manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated. Documentation to demonstrate knowledge about the extraction site, materials to be extracted, and the candidate disposal site is an essential component of guideline application. These Guidelines allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous. It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. It is anticipated that substantial numbers of permit applications will be for minor, routine activities that have little, if any, potential for significant degradation of the aquatic environment. It generally is not intended or expected that extensive testing, evaluation or analysis will be needed to make findings of compliance in such routine cases. Where the conditions for General permits are met, and where numerous applications for similar activities are likely, the use of General permits will eliminate repetitive evaluation and documentation for individual discharges.

(b) The Guidelines user, including the agency or agencies responsible for implementing the Guidelines, must recognize the different levels of effort that should be associated with varying degrees of impact and require or prepare commensurate documentation. The level of documentation should reflect the significance and complexity of the discharge activity.

(c) An essential part of the evaluation process involves making determinations as to the relevance of any portion(s) of the Guidelines and conducting further evaluation only as needed. However, where portions of the Guidelines review procedure are "short form" evaluations, there still must be sufficient information (including consideration of both individual and cumulative impacts) to support the decision of whether to specify the site for disposal of dredged or fill material and to support the decision to curtail or abbreviate the evaluation process. The presumption against the discharge in § 230.1 applies to this decision-making.

(d) In the case of activities covered by General permits or section 208(b)(4)(B) and (C) Best Management Practices, the analysis and documentation required by the Guidelines will be performed at the time of General permit issuance or section 208(b)(4)(B) and (C) Best Management Practices promulgation and will not be repeated when activities are conducted under a General permit or section 208(b)(4)(B) and (C) Best Management Practices control. These Guidelines do not require reporting or formal written communication at the time individual activities are initiated under a General permit or section 208(b)(4)(B) and (C) Best Management Practices. However, a particular General permit may require appropriate reporting.

§ 230.7 General permits.

(a) *Conditions for the issuance of General permits.* A General permit for a category of activities involving the discharge of dredged or fill material complies with the Guidelines if it meets the applicable restrictions on the discharge in § 230.10 and if the permitting authority determines that:

(1) The activities in such category are similar in nature and similar in their impact upon water quality and the aquatic environment;

(2) The activities in such category will have only minimal adverse effects when performed separately; and

(3) The activities in such category will have only minimal cumulative adverse effects on water quality and the aquatic environment.

(b) *Evaluation process.* To reach the determinations required in paragraph (a) of this section, the permitting authority shall set forth in writing an evaluation of the potential individual and cumulative impacts of the category of activities to be regulated under the General permit. While some of the information necessary for this evaluation can be obtained from potential permittees and others through the proposal of General permits for public review, the evaluation must be completed before any General permit is issued, and the results must be published with the final permit.

(1) This evaluation shall be based upon consideration of the prohibitions listed in § 230.10(b) and the factors listed in § 230.10(c), and shall include documented information supporting each factual determination in § 230.11 of the Guidelines (consideration of alternatives in § 230.10(a) are not directly applicable to General permits);

(2) The evaluation shall include a precise description of the activities to be permitted under the General permit, explaining why they are sufficiently similar in nature and in environmental impact to warrant regulation under a single General permit based on Subparts C through F of the Guidelines. Allowable differences between activities which will be regulated under the same General permit shall be specified. Activities otherwise similar in nature may differ in environmental impact due to their location in or near ecologically sensitive areas, areas with unique chemical or physical characteristics, areas containing concentrations of toxic substances, or

areas regulated for specific human uses or by specific land or water management plans (e.g., areas regulated under an approved Coastal Zone Management Plan). If there are specific geographic areas within the purview of a proposed General permit (called a draft General permit under a State 404 program), which are more appropriately regulated by individual permit due to the considerations cited in this paragraph, they shall be clearly delineated in the evaluation and excluded from the permit. In addition, the permitting authority may require an individual permit for any proposed activity under a General permit where the nature or location of the activity makes an individual permit more appropriate.

(3) To predict cumulative effects, the evaluation shall include the number of individual discharge activities likely to be regulated under a General permit until its expiration, including repetitions of individual discharge activities at a single location.

Subpart B—Compliance With the Guidelines

§ 230.10 Restrictions on discharge.

NOTE: Because other laws may apply to particular discharges and because the Corps of Engineers or State 404 agency may have additional procedural and substantive requirements, a discharge complying with the requirement of these Guidelines will not automatically receive a permit.

Although all requirements in § 230.10 must be met, the compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill material discharge activities.

(a) Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

(1) For the purpose of this requirement, practicable alternatives include, but are not limited to:

(i) Activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters;

(ii) Discharges of dredged or fill material at other locations in waters of the United States or ocean waters;

(2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.

(3) Where the activity associated with a discharge which is proposed for a special aquatic site (as defined in Subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demostrated otherwise.

(4) For actions subject to NEPA, where the Corps of Engineers is the permitting agency, the analysis of alternatives required for NEPA environmental documents, including supplemental Corps NEPA documents, will in most cases provide the information for the evaluation of alternatives under these Guidelines. On occasion, these NEPA documents may address a broader range of alternatives than required to be considered under this paragraph or may not have considered the alternatives in sufficient detail to respond to the requirements of these Guidelines. In the latter case, it may be necessary to supplement these NEPA documents with this additional information.

(5) To the extent that practicable alternatives have been identified and

evaluated under a Coastal Zone Management program, a section 208 program, or other planning process, such evaluation shall be considered by the permitting authority as part of the consideration of alternatives under the Guidelines. Where such evaluation is less complete than that contemplated under this subsection, it must be supplemented accordingly.

(b) No discharge of dredged or fill material shall be permitted if it:

(1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard;

(2) Violates any applicable toxic effluent standard or prohibition under section 307 of the Act;

(3) Jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended. If an exemption has been granted by the Endangered Species Committee, the terms of such exemption shall apply in lieu of this subparagraph;

(4) Violates any requirement imposed by the Secretary of Commerce to protect any marine sanctuary designated under Title III of the Marine Protection, Research, and Sanctuaries Act of 1972.

(c) Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations, and tests required by Subparts B and G, after consideration of Subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts. Under these Guidelines, effects contributing to significant degradation considered individually or collectively, include:

(1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.

(2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;

(3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or

(4) Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.

(d) Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Subpart H identifies such possible steps.

§ 230.11 Factual determinations.

The permitting authority shall determine in writing the potential short-term or long-term effects of a proposed discharge of dredged or fill material on the physical, chemical, and biological components of the aquatic environment in light of Subparts C through F. Such factual determinations shall be used in § 230.12 in making findings of compliance or non-compliance with the restrictions on discharge in § 230.10. The evaluation and testing procedures described in § 230.60 and § 230.61 of Subpart G shall be used as necessary to make, and shall be described in, such determination. The determinations of effects of each proposed discharge shall include the following:

(a) *Physical substrate determinations.* Determine the nature and degree of effect that the proposed discharge will have, individually and cumulatively, on the characteristics of the substrate at the proposed disposal site. Consideration shall be given to the similarity in particle size, shape, and degree of compaction of the material proposed for discharge and the material constituting the substrate at the disposal site, and any potential changes in substrate elevation and bottom contours, including changes outside of the disposal site which may occur as a result of erosion, slumpage, or other movement of the discharged material. The duration and physical extent of substrate changes shall also be considered. The possible loss of environmental values (§ 230.20) and actions to minimize impact (Subpart H) shall also be considered in making these determinations. Potential changes in substrate elevation and bottom contours shall be predicted on the basis of the proposed method, volume, location, and rate of discharge, as well as on the individual and combined effects of current patterns, water circulation, wind and wave action, and other physical factors that may affect the movement of the discharged material.

(b) *Water circulation, fluctuation, and salinity determinations.* Determine the nature and degree of effect that the proposed discharge will have individually and cumulatively on water, current patterns, circulation including downstream flows, and normal water fluctuation. Consideration shall be given to water chemistry, salinity, clarity, color, odor, taste, dissolved gas levels, temperature, nutrients, and eutrophication plus other appropriate characteristics. Consideration shall also be given to the potential diversion or obstruction of flow, alterations of bottom contours, or other significant changes in the hydrologic regime. Additional consideration of the possible loss of environmen[illegible] values (§§ 230.23 through 230.25) a[illegible]ctions to minimize impacts (Subpart H), shall be used in making these determinations. Potential significant effects on the current patterns, water circulation, normal water fluctuation and salinity shall be evaluated on the basis of the proposed method, volume, location, and rate of discharge.

(c) *Suspended particulate/turbidity determinations.* Determine the nature and degree of effect that the proposed discharge will have, individually and cumulatively, in terms of potential changes in the kinds and concentrations of suspended particulate/turbidity in the vicinity of the disposal site. Consideration shall be given to the grain size of the material proposed for discharge, the shape and size of the plume of suspended particulates, the duration of the discharge and resulting plume and whether or not the potential changes will cause violations of applicable water quality standards. Consideration should also be given to the possible loss of environmental values (§ 230.21) and to actions for minimizing impacts (Subpart H). Consideration shall include the proposed method, volume, location, and rate of discharge, as well as the individual and combined effects of current patterns, water circulation and fluctuations, wind and wave action, and other physical factors on the movement of suspended particulates.

(d) *Contaminant determinations.* Determine the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants. This determination shall consider the material to be discharged, the aquatic environment at the proposed disposal site, and the availability of contaminants.

(e) *Aquatic ecosystem and organism determinations.* Determine the nature and degree of effect that the proposed discharge will have, both individually and cumulatively, on the structure and function of the aquatic ecosystem and organisms. Consideration shall be given to the effect at the proposed disposal site of potential changes in substrate characteristics and elevation, water or substrate chemistry, nutrients, currents, circulation, fluctuation, and salinity, on the recolonization and existence of indigenous aquatic organisms or communities. Possible loss of environmental values (§ 230.31), and actions to minimize impacts (Subpart H) shall be examined. Tests as described in § 230.61 (Evaluation and Testing), may be required to provide information on the effect of the discharge material on communities or populations of organisms expected to be exposed to it.

(f) *Proposed disposal site determinations.* (1) Each disposal site shall be specified through the application of these Guidelines. The mixing zone shall be confined to the smallest practicable zone within each specified disposal site that is consistent with the type of dispersion determined to be appropriate by the application of these Guidelines. In a few special cases under unique environmental conditions, where there is adequate justification to show that widespread dispersion by natural means will result in no significantly adverse environmental effects, the discharged material may be intended to be spread naturally in a very thin layer over a large area of the substrate rather than be contained within the disposal site.

(2) The permitting authority and the Regional Administrator shall consider the following factors in determining the acceptability of a proposed mixing zone:

(i) Depth of water at the disposal site;

(ii) Current velocity, direction, and variability at the disposal site;

(iii) Degree of turbulence;

(iv) Stratification attributable to causes such as obstructions, salinity or density profiles at the disposal site;

(v) Discharge vessel speed and direction, if appropriate;

(vi) Rate of discharge;

(vii) Ambient concentration of constituents of interest;

(viii) Dredged material characteristics, particularly concentrations of constituents, amount of material, type of material (sand, silt, clay, etc.) and settling velocities;

(ix) Number of discharge actions per unit of time;

(x) Other factors of the disposal site that affect the rates and patterns of mixing.

(g) *Determination of cumulative effects on the aquatic ecosystem.* (1) Cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

(2) Cumulative effects attributable to the discharge of dredged or fill material in waters of the United States should be predicted to the extent reasonable and practical. The permitting authority shall collect information and solicit information from other sources about the cumulative impacts on the aquatic ecosystem. This information shall be documented and considered during the decision-making process concerning the evaluation of individual permit applications, the issuance of a General permit, and monitoring and enforcement of existing permits.

(h) *Determination of secondary effects on the aquatic ecosystem.* (1) Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities.

(2) Some examples of secondary effects on an aquatic ecosystem are fluctuating water levels in an impoundment and downstream associated with the operation of a dam, septic tank leaching and surface runoff from residential or commercial developments on fill, and leachate and runoff from a sanitary landfill located in waters of the U.S. Activities to be conducted on fast land created by the discharge of dredged or fill material in waters of the United States may have secondary impacts within those waters which should be considered in evaluating the impact of creating those fast lands.

§ 230.12 Findings of compliance or noncompliance with the restrictions on discharge.

(a) On the basis of these Guidelines (Subparts C through G) the proposed disposal sites for the discharge of dredged or fill material must be:

(1) Specified as complying with the requirements of these Guidelines; or

(2) Specified as complying with the requirements of these Guidelines with the inclusion of appropriate and practicable discharge conditions (see Subpart H) to minimize pollution or adverse effects to the affected aquatic ecosystems; or

(3) Specified as failing to comply with the requirements of these Guidelines where:

(i) There is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem, so long as such alternative does not have other significant adverse environmental consequences; or

(ii) The proposed discharge will result in significant degradation of the aquatic ecosystem under § 230.10(b) or (c); or

(iii) The proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem; or

(iv) There does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.

(b) Findings under this section shall be set forth in writing by the permitting authority for each proposed discharge and made available to the permit applicant. These findings shall include the factual determinations required by § 230.11, and a brief explanation of any adaptation of these Guidelines to the activity under consideration. In the case of a General permit, such findings shall be prepared at the time of issuance of that permit rather than for each subsequent discharge under the authority of that permit.

Subpart C—Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem

NOTE: The effects described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.20 Substrate.

(a) The substrate of the aquatic ecosystem underlies open waters of the United States and constitutes the surface of wetlands. It consists of organic and inorganic solid materials and includes water and other liquids or gases that fill the spaces between solid particles.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can result in varying degrees of change in the complex physical, chemical, and biological characteristics of the substrate. Discharges which alter substrate elevation or contours can result in changes in water circulation, depth, current pattern, water fluctuation and water temperature. Discharges may adversely affect bottom-dwelling organisms at the site by smothering immobile forms or forcing mobile forms to migrate. Benthic forms present prior to a discharge are unlikely to recolonize on the discharged material if it is very dissimilar from that of the discharge site. Erosion, slumping, or lateral displacement of surrounding bottom of such deposits can adversely affect areas of the substrate outside the perimeters of the disposal site by changing or destroying habitat. The bulk and composition of the discharged material and the location, method, and timing of discharges may all influence the degree of impact on the substrate.

§ 230.21 Suspended particulates/turbidity.

(a) Suspended particulates in the aquatic ecosystem consist of fine-grained mineral particles, usually smaller than silt, and organic particles. Suspended particulates may enter water bodies as a result of land runoff, flooding, vegetative and planktonic breakdown, resuspension of bottom sediments, and man's activities including dredging and filling. Particulates may remain suspended in the water column for variable periods of time as a result of such factors as agitation of the water mass, particulate specific gravity, particle shape, and physical and chemical properties of particle surfaces.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can result in greatly elevated levels of suspended particulates in the water column for varying lengths of time. These new levels may reduce light penetration and lower the rate of photosynthesis and the primary productivity of an aquatic area if they last long enough. Sight-dependent species may suffer reduced feeding ability leading to limited growth and lowered resistance to disease if high levels of suspended particulates persist. The biological and the chemical content of the suspended material may react with the dissolved oxygen in the water, which can result in oxygen depletion. Toxic metals and organics, pathogens, and viruses absorbed or adsorbed to fine-grained particulates in the material may become biologically available to organisms either in the water column or on the substrate. Significant increases in suspended particulate levels create turbid plumes which are highly visible and aesthetically displeasing. The extent and persistence of these adverse impacts caused by discharges depend upon the relative increase in suspended particulates above the amount occurring naturally, the duration of the higher levels, the current patterns, water level, and fluctuations present when such discharges occur, the volume, rate, and duration of the discharge, particulate deposition, and the seasonal timing of the discharge.

§ 230.22 Water.

(a) Water is the part of the aquatic ecosystem in which organic and inorganic constituents are dissolved and suspended. It constitutes part of the liquid phase and is contained by the substrate. Water forms part of a dynamic aquatic life-supporting system. Water clarity, nutrients and chemical content, physical and biological content, dissolved gas levels, pH, and temperature contribute to its life-sustaining capabilities.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can change the chemistry and the physical characteristics of the receiving water at a disposal site through the introduction of chemical constituents in suspended or dissolved form. Changes in the clarity, color, odor, and taste of water and the addition of contaminants can reduce or eliminate the suitability of water bodies for populations of aquatic organisms, and for human consumption, recreation, and aesthetics. The introduction of nutrients or organic material to the water column as a result of the discharge can lead to a high biochemical oxygen demand (BOD), which in turn can lead to reduced dissolved oxygen, thereby potentially affecting the survival of many aquatic organisms. Increases in nutrients can favor one group of organisms such as algae to the detriment of other more desirable types such as submerged aquatic vegetation, potentially causing adverse health effects, objectionable tastes and odors, and other problems.

§ 230.23 Current patterns and water circulation.

(a) Current patterns and water circulation are the physical movements of water in the aquatic ecosystem. Currents and circulation respond to natural forces as modified by basin shape and cover, physical and chemical characteristics of water strata and masses, and energy dissipating factors.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can modify current patterns and water circulation by obstructing flow, changing the direction or velocity of water flow, changing the direction or velocity of water flow and circulation, or otherwise changing the dimensions of a water body. As a result, adverse changes can occur in: Location, structure, and dynamics of aquatic communities; shoreline and substrate erosion and depositon rates; the deposition of suspended particulates; the rate and extent of mixing of dissolved and suspended components of the water body; and water stratification.

§ 230.24 Normal water fluctuations.

(a) Normal water fluctuations in a natural aquatic system consist of daily, seasonal, and annual tidal and flood fluctuations in water level. Biological and physical components of such a system are either attuned to or characterized by these periodic water fluctuations.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can alter the normal water-level fluctuation pattern of an area, resulting in prolonged periods of inundation, exaggerated extremes of high and low water, or a static, nonfluctuating water level. Such water level modifications may change salinity patterns, alter erosion or sedimentation rates, aggravate water temperature extremes, and upset the nutrient and dissolved oxygen balance of the aquatic ecosystem. In addition, these modifications can alter or destroy communities and populations of aquatic animals and vegetation, induce populations of nuisance organisms, modify habitat, reduce food supplies, restrict movement of aquatic fauna, destroy spawning areas, and change adjacent, upstream, and downstream areas.

§ 230.25 Salinity gradients.

(a) Salinity gradients form where salt water from the ocean meets and mixes with fresh water from land.

(b) Possible loss of environmental characteristics and values: Obstructions which divert or restrict flow of either fresh or salt water may change existing salinity gradients. For example, partial blocking of the entrance to an estuary or river mouth that significantly restricts the movement of the salt water into and out of that area can effectively lower the volume of salt water available for mixing within that estuary. The downstream migration of the salinity gradient can occur, displacing the maximum sedimentation zone and requiring salinity-dependent aquatic biota to adjust to the new conditions, move to new locations if possible, or perish. In the freshwater zone, discharge operations in the upstream regions can have equally adverse impacts. A significant reduction in the volume of fresh water moving into an estuary below that which is considered normal can affect the location and type of mixing thereby changing the characteristic salinity patterns. The resulting changed circulation pattern can cause the upstream migration of the salinity gradient displacing the maximim sedimentation zone. This migration may affect those organisms that are adapted to freshwater environments. It may also affect municipal water supplies.

NOTE: Possible actions to minimize adverse impacts regarding site characteristics can be found in Subpart H.

Subpart D—Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

NOTE: The impacts described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.30 Threatened and endangered species.

(a) An endangered species is a plant or animal in danger of extinction throughout all or a significant portion of its range. A threatened species is one in danger of becoming an endangered species in the foreseeable future throughout all or a significant portion of its range. Listings of threatened and endangered species as well as critical habitats are maintained by some individual States and by the U.S. Fish and Wildlife Service of the Department of the Interior (codified annually at 50 CFR 17.11). The Department of Commerce has authority over some threatened and endangered marine mammals, fish and reptiles.

(b) Possible loss of values: The major potential impacts on threatened or endangered species from the discharge of dredged or fill material include:

(1) Covering or otherwise directly killing species;

(2) The impairment or destruction of habitat to which these species are limited. Elements of the aquatic habitat which are particularly crucial to the continued survival of some threatened or endangered species include adequate good quality water, spawning and maturation areas, nesting areas, protective cover, adequate and reliable food supply, and resting areas for migratory species. Each of these elements can be adversely affected by

changes in either the normal water conditions for clarity, chemical content, nutrient balance, dissolved oxygen, pH, temperature, salinity, current patterns, circulation and fluctuation, or the physical removal of habitat; and

(3) Facilitating incompatible activities.

(c) Where consultation with the Secretary of the Interior occurs under section 7 of the Endangered Species Act, the conclusions of the Secretary concerning the impact(s) of the discharge on threatened and endangered species and their habitat shall be considered final.

§ 230.31 Fish, crustaceans, mollusks, and other aquatic organisms in the food web.

(a) Aquatic organisms in the food web include, but are not limited to, finfish, crustaceans, mollusks, insects, annelids, planktonic organisms, and the plants and animals on which they feed and depend upon for their needs. All forms and life stages of an organism, throughout its geographic range, are included in this category.

(b) Possible loss of values: The discharge of dredged or fill material can variously affect populations of fish, crustaceans, mollusks and other food web organisms through the release of contaminants which adversely affect adults, juveniles, larvae, or eggs, or result in the establishment or proliferation of an undesirable competitive species of plant or animal at the expense of the desired resident species. Suspended particulates settling on attached or buried eggs can smother the eggs by limiting or sealing off their exposure to oxygenated water. Discharge of dredged and fill material may result in the debilitation or death of sedentary organisms by smothering, exposure to chemical contaminants in dissolved or suspended form, exposure to high levels of suspended particulates, reduction in food supply, or alteration of the substrate upon which they are dependent. Mollusks are particularly sensitive to the discharge of material during periods of reproduction and growth and development due primarily to their limited mobility. They can be rendered unfit for human consumption by tainting, by production and accumulation of toxins, or by ingestion and retention of pathogenic organisms, viruses, heavy metals or persistent synthetic organic chemicals. The discharge of dredged or fill material can redirect, delay, or stop the reproductive and feeding movements of some species of fish and crustacea, thus preventing their aggregation in accustomed places such as spawning or nursery grounds and potentially leading to reduced populations. Reduction of detrital feeding species or other representatives of lower trophic levels can impair the flow of energy from primary consumers to higher trophic levels. The reduction or potential elimination of food chain organism populations decreases the overall productivity and nutrient export capability of the ecosystem.

§ 230.32 Other wildlife.

(a) Wildlife associated with aquatic ecosystems are resident and transient mammals, birds, reptiles, and amphibians.

(b) Possible loss of values: The discharge of dredged or fill material can result in the loss or change of breeding and nesting areas, escape cover, travel corridors, and preferred food sources for resident and transient wildlife species associated with the aquatic ecosystem. These adverse impacts upon wildlife habitat may result from changes in water levels, water flow and circulation, salinity, chemical content, and substrate characteristics and elevation. Increased water turbidity can adversely affect wildlife species which rely upon sight to feed, and disrupt the respiration and feeding of certain aquatic wildlife and food chain organisms. The availability of contaminants from the discharge of dredged or fill material may lead to the bioaccumulation of such contaminants in wildlife. Changes in such physical and chemical factors of the environment may favor the introduction of undesirable plant and animal species at the expense of resident species and communities. In some aquatic environments lowering plant and animal species diversity may disrupt the normal functions of the ecosystem and lead to reductions in overall biological productivity.

NOTE: Possible actions to minimize adverse impacts regarding characteristics of biological components of the aquatic ecosystem can be found in Subpart H.

Subpart E—Potential Impacts on Special Aquatic Sites

NOTE: The impacts described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B. The definition of special aquatic sites is found in § 230.3(q-1).

§ 230.40 Sanctuaries and refuges.

(a) Sanctuaries and refuges consist of areas designated under State and Federal laws or local ordinances to be managed principally for the preservation and use of fish and wildlife resources.

(b) Possible loss of values: Sanctuaries and refuges may be affected by discharges of dredged or fill material which will:

(1) Disrupt the breeding, spawning, migratory movements or other critical life requirements of resident or transient fish and wildlife resources;

(2) Create unplanned, easy and incompatible human access to remote aquatic areas;

(3) Create the need for frequent maintenance activity;

(4) Result in the establishment of undesirable competitive species of plants and animals;

(5) Change the balance of water and land areas needed to provide cover, food, and other fish and wildlife habitat requirements in a way that modifies sanctuary or refuge management practices;

(6) Result in any of the other adverse impacts discussed in Subparts C and D as they relate to a particular sanctuary or refuge.

§ 230.41 Wetlands.

(a)(1) Wetlands consist of areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(2) Where wetlands are adjacent to open water, they generally constitute the transition to upland. The margin between wetland and open water can best be established by specialists familiar with the local environment, particularly where emergent vegetation merges with submerged vegetation over a broad area in such places as the lateral margins of open water, headwaters, rainwater catch basins, and groundwater seeps. The landward margin of wetlands also can best be identified by specialists familiar with the local environment when vegetation from the two regions merges over a broad area.

(3) Wetland vegetation consists of plants that require saturated soils to survive (obligate wetland plants) as well as plants, including certain trees, that gain a competitive advantage over others because they can tolerate prolonged wet soil conditions and their competitors cannot. In addition to plant populations and communities, wetlands are delimited by hydrological and physical characteristics of the environment. These characteristics should be considered when information about them is needed to supplement information available about vegetation, or where wetland vegetation has been removed or is dormant.

(b) Possible loss of values: The discharge of dredged or fill material in wetlands is likely to damage or destroy habitat and adversely affect the biological productivity of wetlands ecosystems by smothering, by dewatering, by permanently flooding, or by altering substrate elevation or periodicity of water movement. The addition of dredged or fill material may destroy wetland vegetation or result in advancement of succession to dry land species. It may reduce or eliminate nutrient exchange by a reduction of the system's productivity, or by altering current patterns and velocities. Disruption or elimination of the wetland system can degrade water quality by obstructing circulation patterns that flush large expanses of wetland systems, by interfering with the filtration function of wetlands, or by changing the aquifer recharge capability of a wetland. Discharges can also change the wetland habitat value for fish and wildlife as discussed in Subpart D. When disruptions in flow and circulation patterns occur, apparently minor loss of wetland acreage may result in major losses through secondary impacts. Discharging fill material in wetlands as part of municipal, industrial or recreational development may modify the capacity of wetlands to retain and store floodwaters and to serve as a buffer zone shielding upland areas from wave actions, storm damage and erosion.

§ 230.42 Mud flats.

(a) Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence and in inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at high tides with the water table at or near the surface of the substrate. The substrate of mud flats contains organic material and particles smaller in size than sand. They are either unvegetated or vegetated only by algal mats.

(b) Possible loss of values: The discharge of dredged or fill material can cause changes in water circulation patterns which may permanently flood or dewater the mud flat or disrupt periodic inundation, resulting in an increase in the rate of erosion or accretion. Such changes can deplete or eliminate mud flat biota, foraging areas, and nursery areas. Changes in inundation patterns can affect the chemical and biological exchange and decomposition process occurring on the mud flat and change the deposition of suspended material affecting the productivity of the area. Changes may reduce the mud flat's capacity to dissipate storm surge runoff.

§ 230.43 Vegetated shallows.

(a) Vegetated shallows are permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as turtle grass and eelgrass in estuarine or marine systems as well as a number of freshwater species in rivers and lakes.

(b) Possible loss of values: The discharge of dredged or fill material can smother vegetation and benthic organisms. It may also create unsuitable conditions for their continued vigor by: (1) Changing water circulation patterns; (2) releasing nutrients that increase undesirable algal populations; (3) releasing chemicals that adversely affect plants and animals; (4) increasing turbidity levels, thereby reducing light penetration and hence photosynthesis; and (5) changing the capacity of a vegetated shallow to stabilize bottom materials and decrease channel shoaling. The discharge of dredged or fill material may reduce the value of vegetated shallows as nesting, spawning, nursery, cover, and forage areas, as well as their value in protecting shorelines from erosion and wave actions. It may also encourage the growth of nuisance vegetation.

§ 230.44 Coral reefs.

(a) Coral reefs consist of the skeletal deposit, usually of calcareous or silicaceous materials, produced by the vital activities of anthozoan polyps or other invertebrate organisms present in growing portions of the reef.

(b) Possible loss of values: The discharge of dredged or fill material can adversely affect colonies of reef building organisms by burying them, by releasing contaminants such as hydrocarbons into the water column, by reducing light penetration through the water, and by increasing the level of suspended particulates. Coral organisms are extremely sensitive to even slight reductions in light penetration or increases in suspended particulates. These adverse effects will cause a loss of productive colonies which in turn provide habitat for many species of highly specialized aquatic organisms.

§ 230.45 Riffle and pool complexes.

(a) Steep gradient sections of streams are sometimes characterized by riffle and pool complexes. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a steaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes are particularly valuable habitat for fish and wildlife.

(b) Possible loss of values: Discharge of dredged or fill material can eliminate riffle and pool areas by displacement, hydrologic modification, or sedimentation. Activities which affect riffle and pool areas and especially riffle/pool ratios, may reduce the aeration and filtration capabilities at the discharge site and downstream, may reduce stream habitat diversity, and may retard repopulation of the disposal site and downstream waters through sedimentation and the creation of unsuitable habitat. The discharge of dredged or fill material which alters stream hydrology may cause scouring or sedimentation of riffles and pools. Sedimentation induced through hydrological modification or as a direct result of the deposition of unconsolidated dredged or fill material may clog riffle and pool areas, destroy habitats, and create anaerobic conditions. Eliminating pools and meanders by the discharge of dredged or fill material can reduce water holding capacity of streams and cause rapid runoff from a watershed. Rapid runoff can deliver large quantities of flood water in a short time to downstream areas resulting in the destruction of natural habitat, high property loss, and the need for further hydraulic modification.

NOTE: Possible actions to minimize adverse impacts on site or material characteristics can be found in Subpart H.

Subpart F—Potential Effects on Human Use Characteristics

NOTE: The effects described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.50 Municipal and private water supplies.

(a) Municipal and private water supplies consist of surface water or ground water which is directed to the intake of a municipal or private water supply system.

(b) Possible loss of values: Discharges can affect the quality of water supplies with respect to color, taste, odor, chemical content and suspended particulate concentration, in such a way as to reduce the fitness of the water for consumption. Water can be rendered unpalatable or unhealthy by the addition of suspended particulates, viruses and pathogenic organisms, and dissolved materials. The expense of removing such substances before the water is delivered for consumption can be high. Discharges may also affect the quantity of water available for municipal and private water supplies. In addition, certain commonly used water treatment chemicals have the potential for combining with some suspended or dissolved substances from dredged or fill material to form other products that can have a toxic effect on consumers.

§ 230.51 Recreational and commercial fisheries.

(a) Recreational and commercial fisheries consist of harvestable fish, crustaceans, shellfish, and other aquatic organisms used by man.

(b) Possible loss of values: The discharge of dredged or fill materials can affect the suitability of recreational and commercial fishing grounds as habitat for populations of consumable aquatic organisms. Discharges can result in the chemical contamination of recreational or commercial fisheries. They may also interfere with the reproductive success of recreational and commercially important aquatic species through disruption of migration and spawning areas. The introduction of pollutants at critical times in their life cycle may directly reduce populations of commercially important aquatic organisms or indirectly reduce them by reducing organisms upon which they depend for food. Any of these impacts can be of short duration or prolonged, depending upon the physical and chemical impacts of the discharge and the biological availability of contaminants to aquatic organisms.

§ 230.52 Water-related recreation.

(a) Water-related recreation encompasses activities undertaken for amusement and relaxation. Activities encompass two broad categories of use: consumptive, e.g., harvesting resources by hunting and fishing; and non-comsumptive, e.g. canoeing and sight-seeing.

(b) Possible loss of values: One of the more important direct impacts of dredged or fill disposal is to impair or destroy the resources which support recreation activities. The disposal of dredged or fill material may adversely modify or destroy water use for recreation by changing turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenic organisms, quality of habitat, and the aesthetic qualities of sight, taste, odor, and color.

§ 230.53 Aesthetics.

(a) Aesthetics associated with the aquatic ecosystem consist of the perception of beauty by one or a combination of the senses of sight, hearing, touch, and smell. Aesthetics of aquatic ecosystems apply to the quality of life enjoyed by the general public and property owners.

(b) Possible loss of values: The discharge of dredged or fill material can mar the beauty of natural aquatic ecosystems by degrading water quality, creating distracting disposal sites, inducing inappropriate development, encouraging unplanned and incompatible human access, and by destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area. The discharge of dredged or fill material can adversely affect the particular features, traits, or characteristics of an aquatic area which make it valuable to property owners. Activities which degrade water quality, disrupt natural substrate and vegetational characteristics, deny access to or visibility of the resource, or result in changes in odor, air quality, or noise levels may reduce the value of an aquatic area to private property owners.

§ 230.54 Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.

(a) These preserves consist of areas designated under Federal and State laws or local ordinances to be managed for their aesthetic, educational, historical, recreational, or scientific value.

(b) Possible loss of values: The discharge of dredged or fill material into such areas may modify the aesthetic, educational, historical, recreational and/or scientific qualities thereby reducing or eliminating the uses for which such sites are set aside and managed.

NOTE: Possible actions to minimize adverse impacts regarding site or material characteristics can be found in Subpart H.

Subpart G—Evaluation and Testing

§ 230.60 General evaluation of dredged or fill material.

The purpose of these evaluation procedures and the chemical and biological testing sequence outlined in § 230.61 is to provide information to reach the determinations required by § 230.11. Where the results of prior evaluations, chemical and biological tests, scientific research, and experience can provide information helpful in making a determination, these should be used. Such prior results may make new testing unnecessary. The information used shall be documented. Where the same information applies to more than one determination, it may be documented once and referenced in later determinations.

(a) If the evaluation under paragraph (b) indicates the dredged or fill material is not a carrier of contaminants, then the required determinations pertaining to the presence and effects of contaminants can be made without testing. Dredged or fill material is most likely to be free from chemical, biological, or other pollutants where it is composed primarily of sand, gravel, or other naturally occurring inert material. Dredged material so composed is generally found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels. However, when such material is discolored or contains other indications that contaminants may be present, further inquiry should be made.

(b) The extraction site shall be examined in order to assess whether it is sufficiently removed from sources of pollution to provide reasonable assurance that the proposed discharge material is not a carrier of contaminants. Factors to be considered include but are not limited to:

(1) Potential routes of contaminants or contaminated sediments to the extraction site, based on hydrographic or other maps, aerial photography, or other materials that show watercourses, surface relief, proximity to tidal movement, private and public roads, location of buildings, municipal and industrial areas, and agricultural or forest lands.

(2) Pertinent results from tests previously carried out on the material at the extraction site, or carried out on similar material for other permitted projects in the vicinity. Materials shall be considered similar if the sources of contamination, the physical configuration of the sites and the sediment composition of the materials are comparable, in light of water circulation and stratification, sediment accumulation and general sediment characteristics. Tests from other sites may be relied on only if no changes have occurred at the extraction sites to render the results irrelevant.

(3) Any potential for significant introduction of persistent pesticides from land runoff or percolation;

(4) Any records of spills or disposal of petroleum products or substances designated as hazardous under section 311 of the Clean Water Act (See 40 CFR Part 116);

(5) Information in Federal, State and local records indicating significant introduction of pollutants from industries, municipalities, or other sources, including types and amounts of waste materials discharged along the potential routes of contaminants to the extraction site; and

(6) Any possibility of the presence of substantial natural deposits of minerals or other substances which could be released to the aquatic environment in harmful quantities by man-induced discharge activities.

(c) To reach the determinations in § 230.11 involving potential effects of the discharge on the characteristics of the disposal site, the narrative guidance in Subparts C through F shall be used along with the general evaluation procedure in § 230.60 and, if necessary, the chemical and biological testing sequence in § 230.61. Where the discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and materials at the two sites are substantially similar, the fact that the material to be discharged may be a carrier of contaminants is not likely to result in degradation of the disposal site. In such circumstances, when dissolved material and suspended particulates can be controlled to prevent carrying pollutants to less contaminated areas, testing will not be required.

(d) Even if the § 230.60(b) evaluation (previous tests, the presence of polluting industries and information about their discharge or runoff into waters of the U.S., bioinventories, etc.) leads to the conclusion that there is a high probability that the material proposed for discharge is a carrier of contaminants, testing may not be necessary if constraints are available to reduce contamination to acceptable levels within the disposal site and to prevent contaminants from being transported beyond the boundaries of the disposal site, if such constraints are acceptable to the permitting authority and the Regional Administrator, and if the potential discharger is willing and able to implement such constraints. However, even if tests are not performed, the permitting authority must still determine the probable impact of the operation on the receiving aquatic ecosystem. Any decision not to test must be explained in the determinations made under § 230.11.

§ 230.61 Chemical, biological, and physical evaluation and testing.

NOTE: The Agency is today proposing revised testing guidelines. The evaluation and testing procedures in this section are based on the 1975 section 404(b)(1) interim final Guidelines and shall remain in effect until the revised testing guidelines are published as final regulations.

(a) No single test or approach can be applied in all cases to evaluate the effects of proposed discharges of dredged or fill materials. This section provides some guidance in determining which test and/or evaluation procedures are appropriate in a given case. Interim guidance to applicants concerning the applicability of specific approaches or procedures will be furnished by the permitting authority.

(b) *Chemical-biological interactive effects.* The principal concerns of discharge of dredged or fill material that contain contaminants are the potential effects on the water column and on communities of aquatic organisms.

(1) *Evaluation of chemical-biological interactive effects.* Dredged or fill material may be excluded from the evaluation procedures specified in paragraphs (b) (2) and (3) of this section if it is determined, on the basis of the evaluation in § 230.60, that the likelihood of contamination by contaminants is acceptably low, unless the permitting authority, after evaluating and considering any comments received from the Regional Administrator, determines that these procedures are necessary. The Regional Administrator may require, on a case-by-case basis, testing approaches and procedures by stating what additional information is needed through further analyses and how the results of the analyses will be of value in evaluating potential environmental effects.

If the General Evaluation indicates the presence of a sufficiently large number of chemicals to render impractical the identification of all contaminants by chemical testing, information may be obtained from bioassays in lieu of chemical tests.

(2) *Water column effects.* (i) Sediments normally contain constituents that exist in various chemical forms and in various concentrations in several locations within the sediment. An elutriate test may be used to predict the effect on water quality due to release of contaminants from the sediment to the water column. However, in the case of fill material originating on land which may be a carrier of contaminants, a water leachate test is appropriate.

(ii) Major constituents to be analyzed in the elutriate are those deemed critical by the permitting authority, after evaluating and considering any comments received from the Regional Administrator, and considering results of the evaluation in § 230.60. Elutriate concentrations should be compared to concentrations of the same constituents in water from the disposal site. Results should be evaluated in light of the volume and rate of the intended discharge, the type of discharge, the hydrodynamic regime at the disposal site, and other information relevant to the impact on water quality. The permitting authority should consider the mixing zone in evaluating water column effects. The permitting authority may specify bioassays when such procedures will be of value.

(3) *Effects on benthos.* The permitting authority may use an appropriate benthic bioassay (including bioaccumulation tests) when such procedures will be of value in assessing ecological effects and in establishing discharge conditions.

(c) Procedure for comparison of sites.

(1) When an inventory of the total concentration of contaminants would be of value in comparing sediment at the dredging site with sediment at the disposal site, the permitting authority may require a sediment chemical analysis. Markedly different concentrations of contaminants between the excavation and disposal sites may aid in making an environmental assessment of the proposed disposal operation. Such differences should be interpreted in terms of the potential for harm as supported by any pertinent scientific literature.

(2) When an analysis of biological community structure will be of value to assess the potential for adverse environmental impact at the proposed disposal site, a comparison of the biological characteristics between the excavation and disposal sites may be required by the permitting authority. Biological indicator species may be useful in evaluating the existing degree of stress at both sites. Sensitive

species representing community components colonizing various substrate types within the sites should be identified as possible bioassay organisms if tests for toxicity are required. Community structure studies should be performed only when they will be of value in determining discharge conditions. This is particularly applicable to large quantities of dredged material known to contain adverse quantities of toxic materials. Community studies should include benthic organisms such as microbiota and harvestable shellfish and finfish. Abundance, diversity, and distribution should be documented and correlated with substrate type and other appropriate physical and chemical environmental characteristics.

(d) Physical tests and evaluation. The effect of a discharge of dredged or fill material on physical substrate characteristics at the disposal site, as well as on the water circulation, fluctuation, salinity, and suspended particulates content there, is important in making factual determinations in § 230.11. Where information on such effects is not otherwise available to make these factual determinations, the permitting authority shall require appropriate physical tests and evaluations as are justified and deemed necessary. Such tests may include sieve tests, settleability tests, compaction tests, mixing zone and suspended particulate plume determinations, and site assessments of water flow, circulation, and salinity characteristics.

Subpart H—Actions To Minimize Adverse Effects

NOTE: There are many actions which can be undertaken in response to § 203.10(d) to minimize the adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, are listed in this subpart.

§ 230.70 Actions concerning the location of the discharge.

The effects of the discharge can be minimized by the choice of the disposal site. Some of the ways to accomplish this are by:

(a) Locating and confining the discharge to minimize smothering of organisms;

(b) Designing the discharge to avoid a disruption of periodic water inundation patterns;

(c) Selecting a disposal site that has been used previously for dredged material discharge;

(d) Selecting a disposal site at which the substrate is composed of material similar to that being discharged, such as discharging sand on sand or mud on mud;

(e) Selecting the disposal site, the discharge point, and the method of discharge to minimize the extent of any plume;

(f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage of areas subject to such fluctuations.

§ 230.71 Actions concerning the material to be discharged.

The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such as:

(a) Disposal of dredged material in such a manner that physiochemical conditions are maintained and the potency and availability of pollutants are reduced.

(b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular site;

(c) Adding treatment substances to the discharge material;

(d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked disposal areas.

§ 230.72 Actions controlling the material after discharge.

The effects of the dredged or fill material after discharge may be controlled by:

(a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or methods include, but are not limited to:

(1) Using containment levees, sediment basins, and cover crops to reduce erosion;

(2) Using lined containment areas to reduce leaching where leaching of chemical constituents from the discharged material is expected to be a problem;

(b) Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;

(c) Maintaining and containing discharged material properly to prevent point and nonpoint sources of pollution;

(d) Timing the discharge to minimize impact, for instance during periods of unusual high water flows, wind, wave, and tidal actions.

§ 230.73 Actions affecting the method of dispersion.

The effects of a discharge can be minimized by the manner in which it is dispersed, such as:

(a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the disposal site to maintain natural substrate contours and elevation;

(b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water current or circulation pattern, and utilizing natural bottom contours to minimize the size of the mound;

(c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a small area where settling or removal can occur;

(d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge;

(e) Minimizing water column turbidity by using a submerged diffuser system. A similar effect can be accomplished by submerging pipeline discharges or otherwise releasing materials near the bottom;

(f) Selecting sites or managing discharges to confine and minimize the release of suspended particulates to give decreased turbidity levels and to maintain light penetration for organisms;

(g) Setting limitations on the amount of material to be discharged per unit of time or volume of receiving water.

§ 230.74 Actions related to technology.

Discharge technology should be adapted to the needs of each site. In determining whether the discharge operation sufficiently minimizes adverse environmental impacts, the applicant should consider:

(a) Using appropriate equipment or machinery, including protective devices, and the use of such equipment or machinery in activities related to the discharge of dredged or fill material;

(b) Employing appropriate maintenance and operation on equipment or machinery, including adequate training, staffing, and working procedures;

(c) Using machinery and techniques that are especially designed to reduce damage to wetlands. This may include machines equipped with devices that scatter rather than mound excavated materials, machines with specially designed wheels or tracks, and the use of mats under heavy machines to reduce wetland surface compaction and rutting;

(d) Designing access roads and channel spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement;

(e) Employing appropriate machinery and methods of transport of the material for discharge.

§ 230.75 Actions affecting plant and animal populations.

Minimization of adverse effects on populations of plants and animals can be achieved by:

(a) Avoiding changes in water current and circulation patterns which would interfere with the movement of animals;

(b) Selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species which have a competitive edge ecologically over indigenous plants or animals;

(c) Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;

(d) Using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics. Habitat development and restoration techniques can be used to minimize adverse impacts and to compensate for destroyed habitat. Use techniques that have been demonstrated to be effective in circumstances similar to those under consideration wherever possible. Where proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiate their use on a small scale to allow corrective action if unanticipated adverse impacts occur;

(e) Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;

(f) Avoiding the destruction of remnant natural sites within areas already affected by development.

§ 230.76 Actions affecting human use.

Minimization of adverse effects on human use potential may be achieved by:

(a) Selecting discharge sites and following discharge procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the aquatic site (e.g. viewscapes), particularly with respect to water quality;

(b) Selecting disposal sites which are not valuable as natural aquatic areas;

(c) Timing the discharge to avoid the seasons or periods when human recreational activity associated with the aquatic site is most important;

(d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features of an aquatic site or ecosystem;

(e) Selecting sites that will not be detrimental or increase incompatible human activity, or require the need for frequent dredge or fill maintenance activity in remote fish and wildlife areas;

(f) Locating the disposal site outside of the vicinity of a public water supply intake.

§ 230.77 Other actions.

(a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the fill;

(b) In the case of dams, designing water releases to accommodate the needs of fish and wildlife;

(c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain desired water quality of the return discharge through agreement with the Federal funding authority on scientifically defensible pollutant concentration levels in addition to any applicable water quality standards;

(d) When a significant ecological change in the aquatic environment is proposed by the discharge of dredged or fill material, the permitting authority should consider the ecosystem that will be lost as well as the environmental benefits of the new system.

Subpart I—Planning To Shorten Permit Processing Time

§ 230.80 Advanced identification of disposal areas.

(a) Consistent with these Guidelines, EPA and the permitting authority, on their own initiative or at the request of any other party and after consultation with any affected State that is not the permitting authority, may identify sites which will be considered as:

(1) Possible future disposal sites, including existing disposal sites and non-sensitive areas; or

(2) Areas generally unsuitable for disposal site specification;

(b) The identification of any area as a possible future disposal site should not be deemed to constitute a permit for the discharge of dredged or fill material within such area or a specification of a disposal site. The identification of areas that generally will not be available for disposal site specification should not be deemed as prohibiting applications for permits to discharge dredged or fill material in such areas. Either type of identification constitutes information to facilitate individual or General permit application and processing.

(c) An appropriate public notice of the proposed identification of such areas shall be issued;

(d) To provide the basis for advanced identification of disposal areas, and areas unsuitable for disposal, EPA and the permitting authority shall consider the likelihood that use of the area in question for dredged or fill material disposal will comply with these Guidelines. To facilitate this analysis, EPA and the permitting authority should review available water resources management data including data available from the public, other Federal and State agencies, and information from approved Coastal Zone Management programs and River Basin Plans;

(e) The permitting authority should maintain a public record of the identified areas and a written statement of the basis for identification.

PART 231—SECTION 404(c) PROCEDURES

231.1 Purpose and scope.
231.2 Definitions.
231.3 Procedures for proposed determinations.
231.4 Public comments and hearings.
231.5 Recommended determination.
231.6 Administrator's final determinations.
231.7 Emergency procedure.
231.8 Extension of time.

AUTHORITY: 33 U.S.C. 1344(c).

SOURCE: 44 FR 58082, Oct. 9, 1979, unless otherwise noted.

§ 231.1 Purpose and scope.

(a) The Regulations of this part include the procedures to be followed by the Environmental Protection agency in prohibiting or withdrawing the specification, or denying, restricting, or withdrawing the use for specification, of any defined area as a disposal site for dredged or fill material pursuant to section 404(c) of the Clean Water Act ("CWA"), 33 U.S.C. 1344(c). The U.S. Army Corps of Engineers or a state with a 404 program which has been approved under section 404(h) may grant permits specifying disposal sites for dredged or fill material by determining that the section 404(b)(1) Guidelines (40 CFR Part 230) allow specification of a particular site to receive dredged or fill material. The Corps may also grant permits by determining that the discharge of dredged or fill material is necessary under the economic impact provision of section 404(b)(2). Under section 404(c), the Administrator may exercise a veto over the specification by the U.S. Army Corps of Engineers or by a state of a site for the discharge of dredged or fill material. The Administrator may also prohibit the specification of a site under section 404(c) with regard to any existing or potential disposal site before a permit application has been submitted to or approved by the Corps or a state. The Administrator is authorized to prohibit or otherwise restrict a site whenever he determines that the discharge of dredged or fill material is having or will have an "unacceptable adverse effect" on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. In making this determination, the Administrator will take into account all information available to him, including any written determination of compliance with the section 404(b)(1) Guidelines made in 40 CFR Part 230, and will consult with the Chief of Engineers or with the state.

(b) These regulations establish procedures for the following steps:

(1) The Regional Administrator's proposed determinations to prohibit or withdraw the specification of a defined area as a disposal site, or to deny, restrict or withdraw the use of any defined area for the discharge of any particular dredged or fill material;

(2) The Regional Administrator's recommendation to the Administrator for determination as to the specification of a defined area as a disposal site.

(3) The Administrator's final determination to affirm, modify or rescind the recommended determination after consultation with the Chief of Engineers or with the state.

(c) Applicability: The regulations set forth in this part are applicable whenever the Administrator is considering whether the specification of any defined area as a disposal site should be prohibited, denied, restricted, or withdrawn. These regulations apply to all existing, proposed or potential disposal sites for discharges of dredged or fill material into waters of the United States, as defined in 40 CFR 230.2.

§ 231.2 Definitions.

For the purposes of this part, the definitions of terms in 40 CFR 230.2 shall apply. In addition, the term:

(a) "Withdraw specification" means to remove from designation any area already specified as a disposal site by the U.S. Army Corps of Engineers or by a state which has assumed the section 404 program, or any portion of such area.

(b) "Prohibit specification" means to prevent the designation of an area as a present or future disposal site.

(c) "Deny or restrict the use of any defined area for specification" is to deny or restrict the use of any area for the present or future discharge of any dredged or fill material.

(d) "Person" means an individual, corporation, partnership, association, Federal agency, state, municipality, or commission, or political subdivision of a state, or any interstate body.

(e) "Unacceptable adverse effect" means impact on an aquatic or wetland ecosystem which is likely to result in significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines (40 CFR Part 230).

(f) "State" means any state agency administering a 404 program which has been approved under section 404(h).

§ 231.3 Procedures for proposed determinations.

(a) If the Regional Administrator has reason to believe after evaluating the information available to him, including any record developed under the section 404 referral process specified in 33 CFR 323.5(b), that an "unacceptable adverse effect" could result from the specification or use for specification of a defined area for the disposal of dredged or fill material, he may initiate the following actions:

(1) The Regional Administrator will notify the District Engineer or the state, if the site is covered by an approved state program, the owner of record of the site, and the applicant, if any, in writing that the Regional Administrator intends to issue a public notice of a proposed determination to prohibit or withdraw the specification, or to deny, restrict or withdraw the use for specification, whichever the case may be, of any defined area as a disposal site.

(2) If within 15 days of receipt of the Regional Administrator's notice under paragraph (a)(1) of this section, it has not been demonstrated to the satisfaction of the Regional Administrator that no unacceptable adverse effect(s) will occur or the District Engineer or state does not notify the Regional Administrator of his intent to take corrective action to prevent an unacceptable adverse effect satisfactory to the Regional Administrator, the Regional Administrator shall publish notice of a proposed determination in accordance with the procedures of this section. Where the Regional Administrator has notified the District Engineer under paragraph (a)(1) of this section that he is considering exercising section 404(c) authority with respect to a particular disposal site for which a permit application is pending but for which no permit has been issued, the District Engineer, in accordance with 33 CFR 325.8, shall not issue the permit until final action is taken under this part.

COMMENT: In cases involving a proposed disposal site for which a permit application is pending, it is anticipated that the procedures of the section 404 referral process will normally be exhausted prior to any final decision of whether to initiate a 404(c) proceeding.

(b) Public notice of every proposed determination and notice of all public hearings shall be given by the Regional Administrator. Every public notice shall contain, at a minimum:

(1) An announcement that the Regional Administrator has proposed a determination to prohibit or withdraw specification, or to deny, restrict, or

withdraw the use for specification, of an area as a disposal site, including a summary of the facts on which the proposed determination is based;

(2) The location of the existing, proposed or potential disposal site, and a summary of its characteristics;

(3) A summary of information concerning the nature of the proposed discharge, where applicable;

(4) The identity of the permit applicant, if any;

(5) A brief description of the right to, and procedures for requesting, a public hearing; and

(6) The address and telephone number of the office where interested persons may obtain additional information, including copies of the proposed determination; and

(7) Such additional statements, representations, or information as the Regional Administrator considers necessary or proper.

(c) In addition to the information required under paragraph (b) of this section, public notice of a public hearing held under § 231.4 shall contain the following information:

(1) Reference to the date of public notice of the proposed determination;

(2) Date, time and place of the hearing; and

(3) A brief description of the nature and purpose of the hearing including the applicable rules and procedures.

(d) The following procedures for giving public notice of the proposed determination or of a public hearing shall be followed:

(1) Publication at least once in a daily or weekly newspaper of general circulation in the area in which the defined area is located. In addition the Regional Administrator may (i) post a copy of the notice at the principal office of the municipality in which the defined area is located, or if the defined area is not located near a sizeable community, at the principal office of the political subdivision (State, county or local, whichever is appropriate) with general jurisdiction over the area in which the disposal site is located, and (ii) post a copy of the notice at the United States Post Office serving that area.

(2) A copy of the notice shall be mailed to the owner of record of the site, to the permit applicant or permit holder, if any, to the U.S. Fish and Wildlife Service, National Marine Fisheries Service and any other interested Federal and State water pollution control and resource agencies, and to any person who has filed a written request with the Regional Administrator to receive copies of notices relating to section 404(c) determinations;

(3) A copy of the notice shall be mailed to the appropriate District and Division Engineer(s) and state;

(4) The notice will also be published in the FEDERAL REGISTER.

§ 231.4 Public comments and hearings.

(a) The Regional Administrator shall provide a comment period of not less than 30 or more than 60 days following the date of public notice of the proposed determination. During this period any interested persons may submit written comments on the proposed determination. Comments should be directed to whether the proposed determination should become the final determination and corrective action that could be taken to reduce the adverse impact of the discharge. All such comments shall be considered by the Regional Administrator or his designee in preparing his recommended determination in § 231.5.

(b) Where the Regional Administrator finds a significant degree of public interest in a proposed determination or that it would be otherwise in the public interest to hold a hearing, or if an affected landowner or permit applicant or holder requests a hearing, he or his designee shall hold a public hearing. Public notice of that hearing shall be given as specified in § 231.3(c). No hearing may be held prior to 21 days after the date of the public notice. The hearing may be scheduled either by the Regional Administrator at his own initiative, or in response to a request received during the comment period provided for in paragraph (a) of this section. If no public hearing is held the Regional Administrator shall notify any persons who requested a hearing of the reasons for that decision. Where practicable, hearings shall be conducted in the vicinity of the affected site.

(c) Hearings held under this section shall be conducted by the Regional Administrator, or his designee, in an orderly and expeditious manner. A record of the proceeding shall be made by either tape recording or verbatim transcript.

(d) Any person may appear at the hearing and submit oral or written statements and data and may be represented by counsel or other authorized representative. Any person may present written statements for the hearing file prior to the time the hearing file is closed to public submissions, and may present proposed findings and recommendations. The Regional Administrator or his designee shall afford the participants an opportunity for rebuttal.

(e) The Regional Administrator, or his designee, shall have discretion to establish reasonable limits on the nature, amount or form of presentation of documentary material and oral presentations. No cross examination of any hearing participant shall be permitted, although the Regional Administrator, or his designee, may make appropriate inquiries of any such participant.

(f) The Regional Administrator or his designee shall allow a reasonable time not to exceed 15 days after the close of the public hearing for submission of written comments. After such time has expired, unless such period is extended by the Regional Administrator or his designee for good cause, the hearing file shall be closed to additional public written comments.

(g) No later than the time a public notice of proposed determination is issued, a Record Clerk shall be designated with responsibility for maintaining the administrative record identified in § 231.5(e). Copying of any documents in the record shall be permitted under appropriate arrangements to prevent their loss. The charge for such copies shall be in accordance with the written schedule contained in Part 2 of this chapter.

§ 231.5 Recommended determination.

(a) The Regional Administrator or his designee shall, within 30 days after the conclusion of the public hearing (but not before the end of the comment period), or, if no hearing is held, within 15 days after the expiration of the comment period on the public notice of the proposed determination, either withdraw the proposed determination or prepare a recommended determination to prohibit or withdraw specification, or to deny, restrict, or withdraw the use for specification, of the disposal site because the discharge of dredged or fill material at such site would be likely to have an unacceptable adverse effect.

(b) Where a recommended determination is prepared, the Regional Administrator or his designee shall promptly forward the recommended determination and administrative record to the Administrator for review, with a copy of the recommended determination to the Assistant Administrator for Water and Waste Management.

(c) Where the Regional Administrator, or his designee, decides to withdraw the proposed determination, he shall promptly notify the Administrator by mail, with a copy to the Assistant Administrator for Water and Waste Management, who shall have 10 days from receipt of such notice to notify the Regional Administrator of his intent to review such withdrawal. Copies of the notification shall be sent to all persons who commented on the proposed determination or participated at the hearing. Such persons may submit timely written recommendations concerning review.

(1) If the Administrator does not notify him, the Regional Administrator shall give notice at the withdrawal of the proposed determination as provided in § 231.3(d). Such notice shall constitute final agency action.

(2) If the Administrator does decide to review, the Regional Administrator or his designee shall forward the administrative record to the Administrator for a final determination under § 231.6. Where there is review of a withdrawal of proposed determination or review of a recommended determination under § 231.6, final agency action does not occur until the Administrator makes a final determination.

(d) Any recommended determination under paragraph (b) of this section shall include the following:

(1) A summary of the unacceptable adverse effects that could occur from use of the disposal site for the proposed discharge;

(2) Recommendations regarding a final determination to prohibit, deny, restrict, or withdraw, which shall confirm or modify the proposed determination, with a statement of reasons.

(e) The administrative record shall consist of the following:

(1) A copy of the proposed determination, public notice, written comments on the public notice and written submissions in the hearing file;

(2) A transcript or recording of the public hearing, where a hearing was held;

(3) The recommended determination;

(4) Where possible a copy of the record of the Corps or the state pertaining to the site in question;

(5) Any other information considered by the Regional Administrator or his designee.

§ 231.6 Administrator's final determinations.

After reviewing the recommendations of the Regional Administrator or his designee, the Administrator shall within 30 days of receipt of the recommendations and administrative record initiate consultation with the Chief of Engineers, the owner of record, and, where applicable, the State and the applicant, if any. They shall have 15 days to notify the Administrator of their intent to take corrective action to prevent an unacceptable adverse effect(s), satisfactory to the Administrator. Within 60 days of receipt of the recommendations and record, the Administrator shall make a final determination affirming, modifying, or rescinding the recommended determination. The final determination shall describe the satisfactory corrective action, if any, make findings, and state the reasons for the final determination. Notice of such final determination shall be published as provided in § 231.3, and shall be given to all persons who participated in the public hearing. Notice of the Administrator's final determination shall also be published in the FEDERAL REGISTER. For purposes of judicial review, a final determination constitutes final agency action under section 404(c) of the Act.

§ 231.7 Emergency procedure.

Where a permit has already been issued, and the Administrator has reason to believe that a discharge under the permit presents an imminent danger of irreparable harm to municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas) wildlife, or recreational areas, and that the public health, interest, or safety requires, the Administrator may ask the Chief of Engineers to suspend the permit under 33 CFR 325.7, or the state, pending completion of proceedings under Part 231. The Administrator may also take appropriate action as authorized under section 504 of the Clean Water Act. If a permit is suspended, the Administrator and Regional Administrator (or his designee) may, where appropriate, shorten the times allowed by these regulations to take particular actions.

§ 231.8 Extension of time.

The Administrator or the Regional Administrator may, upon a showing of good cause, extend the time requirements in these regulations. Notice of any such extension shall be published in the FEDERAL REGISTER and, as appropriate, through other forms of notice.

PART 232—404 PROGRAM DEFINITIONS; EXEMPT ACTIVITIES NOT REQUIRING 404 PERMITS

Sec.
232.1 Purpose and scope of this part.
232.2 Definitions.
232.3 Activities not requiring permits.

AUTHORITY: 33 U.S.C. 1344.

SOURCE: 53 FR 20773, June 6, 1988, unless otherwise noted.

§ 232.1 Purpose and scope of this part.

Part 232 contains definitions applicable to the section 404 program for discharges of dredged or fill material. These definitions apply to both the federally operated program and State administered programs after program approval. This part also describes those activities which are exempted from regulation. Regulations prescribing the substantive environmental criteria for issuance of section 404 permits appear at 40 CFR Part 230. Regulations establishing procedures to be followed by the EPA in denying or restricting a disposal site appear at 40 CFR Part 231. Regulations containing the procedures and policies used by the Corps in administering the 404 program appear at 33 CFR Parts 320-330. Regulations specifying the procedures EPA will follow, and the criteria EPA will apply in approving, monitoring, and withdrawing approval of section 404 State programs appear at 40 CFR Part 233.

§ 232.2 Definitions.

(a) *Administrator* means the Administrator of the Environmental Protection Agency or an authorized representative.

(b) *Application* means a form for applying for a permit to discharge dredged or fill material into waters of the United States.

(c) *Approved program* means a State program which has been approved by the Regional Administrator under Part 233 of this chapter or which is deemed approved under section 404(h)(3), 33 U.S.C. 1344(h)(3).

(d) *Best management practices* (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States from discharges of dredged or fill material. BMPs include methods, measures, practices, or design and performance standards which facilitate compliance with the section 404(b)(1) Guidelines (40 CFR Part 230), effluent limitations or prohibitions under section 307(a), and applicable water quality standards.

(e) *Discharge of dredged material* means any addition of dredged material into waters of the United States. The term includes, without limitation, the addition of dredged material to a specified discharge site located in waters of the United States and the runoff or overflow from a contained land or water disposal site. Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill) are not included within this term and are subject to section 402 of the Act even though the extraction and deposit of such material may require a permit from the Corps or the State section 404 program. The term does not include *de minimus*, incidental soil movement occurring during normal dredging operations.

(f) *Discharge of fill material* means the addition of fill material into waters of the United States. The term generally includes, without limitation, the following activities: Placement of fill that is necessary to the construction of any structure; the building of any structure or impoundment requiring rock, sand, dirt, or other materials for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection and/or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for structures such as sewage treatment facilities, intake and outfall pipes associated with power plants and subaqueous utility lines; and artificial reefs.

(g) *Dredged material* means material that is excavated or dredged from waters of the United States.

(h) *Effluent* means dredged material or fill material, including return flow from confined sites.

(i) *Fill material* means any "pollutant" which replaces portions of the "waters of the United States" with dry land or which changes the bottom elevation of a water body for any purpose.

(j) *General permit* means a permit authorizing a category of discharges of dredged or fill material under the Act. General permits are permits for categories of discharge which are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment.

(k) *Owner or operator* means the owner or operator of any activity subject to regulation under the 404 program.

(l) *Permit* means a written authorization issued by an approved State to implement the requirements of Part 233, or by the Corps under 33 CFR Parts 320-330. When used in these regulations, "permit" includes "general permit" as well as individual permit.

(m) *Person* means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

(n) *Regional Administrator* means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

(o) *Secretary* means the Secretary of the Army acting through the Chief of Engineers.

(p) *State regulated waters* means those waters of the United States in which the Corps suspends the issuance of section 404 permits upon approval of a State's section 404 permit program by the Administrator under section 404(h). The program cannot be transferred for those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to the high tide line, including wetlands adjacent thereto. All other waters of the United States in a State with an approved program shall be under jurisdiction of the State program, and shall be identified in the program description as required by Part 233.

(q) *Waters of the United States* means:

(1) All waters which are currently used, were used in the past, or may be susceptible to us in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(2) All interstate waters including interstate wetlands.

(3) All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which would or could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce.

(4) All impoundments of waters otherwise defined as waters of the United States under this definition;

(5) Tributaries of waters identified in paragraphs (g)(1)-(4) of this section;

(6) The territorial sea; and

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (q)(1)-(6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Act (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(r) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

§ 232.3 Activities not requiring permits.

Except as specified in paragraphs (a) and (b) of this section, any discharge of dredged or fill material that may result from any of the activities described in paragraph (c) of this section is not prohibited by or otherwise subject to regulation under this part.

(a) If any discharge of dredged or fill material resulting from the activities listed in paragraph (c) of this section contains any toxic polutant listed under section 307 of the Act, such discharge shall be subject to any applicable toxic effluent standard or prohibition, and shall require a section 404 permit.

(b) Any discharge of dredged or fill material into waters of the United States incidental to any of the activities identified in paragraph (c) of this section must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernable alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration.

NOTE: For example, a permit will be required for the conversion of a cypress swamp to some other use or the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with constuction of dikes, drainage ditches or other works or structures used to effect such conversion. A conversion of section 404 wetland to a non-wetland is a change in use of an area of waters of the U.S. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach of, but may alter the flow or circulation of, waters of the United States.

(c) The following activities are exempt from section 404 permit requirements, except as specified in paragraphs (a) and (b) of this section:

(1)(i) Normal farming, silviculture and ranching activities such as plowing, seeding, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices, as defined in paragraph (d) of this section.

(ii)(A) To fall under this exemption, the activities specified in paragraph (c)(1) of this section must be part of an established (i.e., ongong) farming, silviculture, or ranching operation, and must be in accordance with definitions in paragraph (d) of this section. Activities on areas lying fallow as part of a conventional rotational cycle are part of an established operation.

(B) Activities which bring an area into farming, silviculture or ranching use are not part of an established operation. An operation ceases to be established when the area in which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operation. If an activity takes place outside the waters of the United States, or if it does not involve a discharge, it does not need a section 404 permit whether or not it was part of an established farming, silviculture or ranching operation.

(2) Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

(3) Construction or maintenance of farm or stock ponds or irrigation ditches or the maintenance (but not construction) of drainage ditches. Discharge associated with siphons, pumps, headgates, wingwalls, wiers, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are included in this exemption.

(4) Construction of temporary sedimentation basins on a construction site which does not include placement of fill material into waters of the United States. The term "construction site" refers to any site involving the erection of buildings, roads, and other discrete structures and the installation of support facilities necessary for construction and utilization of such structures. The term also includes any other land areas which involve land-disturbing excavation activities, including quarrying or other mining activities, where an increase in the runoff of sediment is controlled through the use of temporary sedimentation basins.

(5) Any activity with respect to which a State has an approved program under section 208(b)(4) of the

Act which meets the requirements of section 208(b)(4)(B) and (C).

(6) Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained in accordance with best management practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized. The BMPs which must be applied to satisfy this provision include the following baseline provisions:

(i) Permanent roads (for farming or forestry activities), temporary access roads (for mining, forestry, or farm purposes) and skid trails (for logging) in waters of the United States shall be held to the minimum feasible number, width, and total length consistent with the purpose of specific farming, silvicultural or mining operations, and local topographic and climatic conditions;

(ii) All roads, temporary or permanent, shall be located sufficiently far from streams or other water bodies (except for portions of such roads which must cross water bodies) to minimize discharges of dredged or fill material into waters of the United States;

(iii) The road fill shall be bridged, culverted, or otherwise designed to prevent the restriction of expected flood flows;

(iv) The fill shall be properly stabilized and maintained to prevent erosion during and following construction;

(v) Discharges of dredged or fill material into waters of the United States to construct a road fill shall be made in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within the waters of the United States (including adjacent wetlands) that lie outside the lateral boundaries of the fill itself;

(vi) In designing, constructing, and maintaining roads, vegetative disturbance in the waters of the United States shall be kept to a minimum;

(vii) The design, construction and maintenance of the road crossing shall not disrupt the migration or other movement of those species of aquatic life inhabiting the water body;

(viii) Borrow material shall be taken from upland sources whenever feasible;

(ix) The discharge shall not take, or jeopardize the continued existence of, a threatened or endangered species as defined under the Endangered Species Act, or adversely modify or destroy the critical habitat of such species;

(x) Discharges into breeding and nesting areas for migratory waterfowl, spawning areas, and wetlands shall be avoided if practical alternatives exist;

(xi) The discharge shall not be located in the proximity of a public water supply intake;

(xii) The discharge shall not occur in areas of concentrated shellfish production;

(xiii) The discharge shall not occur in a component of the National Wild and Scenic River System;

(xiv) The discharge of material shall consist of suitable material free from toxic pollutants in toxic amounts; and

(xv) All temporary fills shall be removed in their entirety and the area restored to its original elevation.

(d) For purpose of paragraph (c)(1) of this section, cultivating, harvesting, minor drainage, plowing, and seeding are defined as follows:

(1) Cultivating means physical methods of soil treatment employed within established farming, ranching and silviculture lands on farm, ranch, or forest crops to aid and improve their growth, quality, or yield.

(2) Harvesting means physical measures employed directly upon farm, forest, or ranch crops within established agricultural and silvicultural lands to bring about their removal from farm, forest, or ranch land, but does not include the construction of farm, forest, or ranch roads.

(3)(i) Minor drainage means:

(A) The discharge of dredged or fill material incidental to connecting upland drainage facilities to waters of the United States, adequate to effect the removal of excess soil moisture from upland croplands. Construction and maintenance of upland (dryland) facilities, such as ditching and tiling, incidental to the planting, cultivating, protecting, or harvesting of crops, involve no discharge of dredged or fill material into waters of the United States, and as such never require a section 404 permit;

(B) The discharge of dredged or fill material for the purpose of installing ditching or other water control facilities incidental to planting, cultivating, protecting, or harvesting of rice, cranberries or other wetland crop species, where these activities and the discharge occur in waters of the United States which are in established use for such agricultural and silvicultural wetland crop production;

(C) The discharge of dredged or fill material for the purpose of manipulating the water levels of, or regulating the flow or distribution of water within, existing impoundments which have been constructed in accordance with applicable requirements of the Act, and which are in established use for the production or rice, cranberries, or other wetland crop species.

NOTE: The provisions of paragraphs (d)(3)(i) (B) and (C) of this section apply to areas that are in established use exclusively for wetland crop production as well as areas in established use for conventional wetland/non-wetland crop rotation (e.g., the rotations of rice and soybeans) where such rotation results in the cyclical or intermittent temporary dewatering of such areas.

(D) The discharge of dredged or fill material incidental to the emergency removal of sandbars, gravel bars, or other similar blockages which are formed during flood flows or other events, where such blockages close or constrict previously existing drainageways and, if not promptly removed, would result in damage to or loss of existing crops or would impair or prevent the plowing, seeding, harvesting or cultivating of crops on land in established use for crop production. Such removal does not include enlarging or extending the dimensions of, or changing the bottom elevations of, the affected drainageway as it existed prior to the formation of the blockage. Removal must be accomplished within one year after such blockages are discovered in order to be eligible for exemption.

(ii) Minor drainage in waters of the United States is limited to drainage within areas that are part of an established farming or silviculture operation. It does not include drainage associated with the immediate or gradual conversion of a wetland to a non-wetland (e.g., wetland species to upland species not typically adequate to life in saturated soil conditions), or conversion from one wetland use to another (for example, silviculture to farming).

In addition, minor drainage does not include the construction of any canal, ditch, dike or other waterway or structure which drains or otherwise significantly modifies a stream, lake, swamp, bog or any other wetland or aquatic area constituting waters of the United States. Any discharge of dredged or fill material into the waters of the United States incidental to the construction of any such structure or waterway requires a permit.

(4) Plowing means all forms of primary tillage, including moldboard, chisel, or wide-blade plowing, discing, harrowing, and similar physical means used on farm, forest or ranch land for the breaking up, cutting, turning over, or stirring of soil to prepare it for the planting of crops. Plowing does not include the redistribution of soil, rock, sand, or other surficial materials in a manner which changes any area of the waters of the United States to dry land. For example, the redistribution of surface materials by blading, grading, or other means to fill in wetland areas is not plowing. Rock crushing activities which result in the loss of natural drainage characteristics, the reduction of water storage and recharge capabilities, or the overburden of natural water filtration capacities do not constitute plowing. Plowing, as described above, will never involve a discharge of dredged or fill material.

(5) Seeding means the sowing of seed and placement of seedlings to produce farm, ranch, or forest crops and includes the placement of soil beds for seeds or seedlings on established farm and forest lands.

(e) Federal projects which qualify under the criteria contained in section 404(r) of the Act are exempt from section 404 permit requirements, but may be subject to other State or Federal requirements.

PART 233—404 STATE PROGRAM REGULATIONS

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AUTHORITY: Clean Water Act, 33 U.S.C. 1251 *et seq.*

SOURCE: 53 FR 20776, June 1, 1988, unless otherwise noted.

Subpart A—General

§ 233.1 Purpose and scope.

(a) This part specifies the procedures EPA will follow, and the criteria EPA will apply, in approving, reviewing, and withdrawing approval of State programs under section 404 of the Act.

(b) Except as provided in § 232.3, the State program must regulate all discharges of dredged or fill material into State regulated waters. Partial State programs are not approvable under section 404. A State's decision not to assume existing Corps general permits does not constitute a partial program. The discharges previously authorized by general permit will be regulated by State individual permits. However, in many cases States will lack authority to regulate activities on Indian lands. This lack of authority does not impair a State's ability to obtain full program approval in accordance with this part, i.e., inability of a State to regulate activities on Indian lands does not constitute a partial program. The Secretary will administer the program on Indian lands if the State does not have authority to regulate activities on Indian lands.

(c) Nothing in this part precludes a State from adopting or enforcing requirements which are more stringent or from operating a program with greater scope, than required under this part. Where an approved State program has a greater scope than required by Federal law, the additional coverage is not part of the Federally approved program and is not subject to Federal oversight or enforcement.

NOTE: State assumption of the section 404 program is limited to certain waters, as provided in section 404(g)(1). The Federal program operated by the Corps of Engineers continues to apply to the remaining waters in the State even after program approval. However, this does not restrict States from regulating discharges of dredged or fill material into those waters over which the Secretary retains section 404 jurisdiction.

(d) Any approved State Program shall, at all times, be conducted in accordance with the requirements of the Act and of this part. While States may impose more stringent requirements, they may not impose any less stringent requirements for any purpose.

§ 233.2 Definitions.

The definitions in Parts 230 and 232 as well as the following definitions apply to this part.

(a) *Act* means the Clean Water Act (33 U.S.C. 1251 et seq.).

(b) *Corps* means the U.S. Army Corps of Engineers.

(c) *FWS* means the U.S. Fish and Wildlife Service.

(d) *Interstate agency* means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution.

(e) *NMFS* means the National Marine Fisheries Service.

(f) *State* means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands. For purposes of this regulation, the word State also includes any interstate agency requesting program approval or administering an approved program.

(g) *State Director (Director)* means the chief administrative officer of any State or interstate agency operating an approved program, or the delegated representative of the Director. If responsibility is divided among two or more State or interstate agencies, Director means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

(h) *State 404 program* or *State program* means a State program which has been approved by EPA under section 404 of the Act to regulate the discharge of dredged or fill material into certain waters as defined in § 232.2(p).

§ 233.3 Confidentiality of information.

(a) Any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter at the time of submittal and a final determination as to that claim will be made in accordance with the procedures of 40 CFR Part 2 and paragraph (c) of this section.

(b) Any information submitted to the Director may be claimed as confidential in accordance with State law, subject to paragraphs (a) and (c) of this section.

(c) Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or permittee,

(2) Effluent data,

(3) Permit application, and

(4) Issued permit.

§ 233.4 Conflict of interest.

Any public officer or employee who has a direct personal or pecuniary interest in any matter that is subject to decision by the agency shall make known such interest in the official records of the agency and shall refrain from participating in any manner in such decision.

Subpart B—Program Approval

§ 233.10 Elements of a program submission.

Any State that seeks to administer a 404 program under this part shall submit to the Regional Administrator at least three copies of the following:

(a) A letter from the Governor of the State requesting program approval.

(b) A complete program description, as set forth in § 233.11.

(c) An Attorney General's statement, as set forth in § 233.12.

(d) A Memorandum of Agreement with the Regional Administrator, as set forth in § 233.13.

(e) A Memorandum of Agreement with the Secretary, as set forth in § 233.14.

(f) Copies of all applicable State statutes and regulations, including those governing applicable State administrative procedures.

§ 233.11 Program description.

The program description as required under § 233.10 shall include:

(a) A description of the scope and structure of the State's program. The description should include extent of State's jurisdiction, scope of activities regulated, anticipated coordination, scope of permit exemptions if any, and permit review criteria;

(b) A description of the State's permitting, administrative, judicial review, and other applicable procedures;

(c) A description of the basic organization and structure of the State agency (agencies) which will have responsibility for administering the program. If more than one State agency is responsible for the administration of the program, the description shall address the responsibilities of each agency and how the agencies intend to coordinate administration and evaluation of the program;

(d) A description of the funding and manpower which will be available for program administration;

(e) An estimate of the anticipated workload, e.g., number of discharges.

(f) Copies of permit application forms, permit forms, and reporting forms;

(g) A description of the State's compliance evaluation and enforcement programs, including a description of how the State will coordinate its enforcement strategy with that of the Corps and EPA;

(h) A description of the waters of the United States within a State over which the State assumes jurisdiction under the approved program; a description of the waters of the United States within a State over which the Secretary retains jurisdiction subsequent to program approval; and a comparison of the State and Federal definitions of wetlands.

NOTE: States should obtain from the Secretary an identification of those waters of the U.S. within the State over which the Corps retains authority under section 404(g) of the Act.

(i) A description of the specific best management practices proposed to be used to satisfy the exemption provisions of section 404(f)(1)(E) of the Act for construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment.

§ 233.12 Attorney General's statement.

(a) Any State that seeks to administer a program under this part shall submit a statement from the State Attorney General (or the attorney for those State or interstate agencies which have independence legal counsel), that the laws and regulations of the State, or an interstate compact, provide adequate authority to carry out the program and meet the applicable requirements of this part. This statement shall cite specific statutes and administrative regulations which are lawfully adopted at the time the statement is signed and which shall be fully effective by the time the program is approved, and, where appropriate, judicial decisions which demonstrate adequate authority. The attorney signing the statement required by this section must have authority to represent the State agency in court on all matters pertaining to the State program.

(b) If a State seeks approval of a program covering activities on Indian lands, the statement shall contain an analysis of the State's authority over such activities.

(c) The State Attorney General's statement shall contain a legal analysis of the effect of State law regarding the prohibition on taking private property without just compensation on the successful implementation of the State's program.

(d) In those States where more than one agency has responsibility for administering the State program, the statement must include certification that each agency has full authority to administer the program within its category of jurisdiction and that the State, as a whole, has full authority to administer a complete State section 404 program.

§ 233.13 Memorandum of Agreement with Regional Administrator.

(a) Any State that seeks to administer a program under this part shall submit a Memorandum of Agreement executed by the Director and the Regional Administrator. The Memorandum of Agreement shall become effective upon approval of the State program. When more than one agency within a State has responsibility for administering the State program, Directors of each of the responsible State agencies shall be parties to the Memorandum of Agreement.

(b) The Memorandum of Agreement shall set out the State and Federal responsibilities for program administration and enforcement. These shall include, but not be limited to:

(1) Provisions specifying classes and categories of permit applications for which EPA will waive Federal review (as specified in § 233.51).

(2) Provisions specifying the frequency and content of reports, documents and other information which the State may be required to submit to EPA in addition to the annual report, as well as a provision establishing the submission date for the annual report. The State shall also allow EPA routinely to review State records, reports and files relevant to the administration and enforcement of the approved program.

(3) Provisions addressing EPA and State roles and coordination with respect to compliance monitoring and enforcement activities.

(4) Provisions addressing modification of the Memorandum of Agreement.

§ 233.14 Memorandum of Agreement with the Secretary.

(a) Before a State program is approved under this part, the Director shall enter into a Memorandum of Agreement with the Secretary. When more than one agency within a State has responsibility for administering the State program, Directors of each of the responsible agencies shall be parties of the Memorandum of Agreement.

(b) The Memorandum of Agreement shall include:

(1) A description of waters of the United States within the State over which the Secretary retains jurisdiction, as identified by the Secretary.

(2) Procedures whereby the Secretary will, upon program approval, transfer to the State pending 404 permit applications for discharges in State regulated waters and other relevant information not already in the possession of the Director.

NOTE: —Where a State permit program includes coverage of those traditionally navigable waters in which only the Secretary may issue section 404 permits, the State is encouraged to establish in this MOA procedures for joint processing of Federal and State permits, including joint public notices and public hearings.

(3) An identification of all general permits issued by the Secretary the terms and conditions of which the State intends to administer and enforce upon receiving approval of its program, and a plan for transferring responsibility for these general permits to the State, including procedures for the prompt transmission from the Secretary to the Director of relevant information not already in the possession of the Director, including support files for permit issuance, compliance reports and records of enforcement actions.

§ 233.15 Procedures for approving State programs.

(a) The 120 day statutory review period shall commence on the date of receipt of a complete State program submission as set out in § 233.10 of this part. EPA shall determine whether the submission is complete within 30 days of receipt of the submission and shall notify the State of its determination. If EPA finds that a State's submission is incomplete, the statutory review period shall not begin until all the necessary information is received by EPA.

(b) If EPA determines the State significantly changes its submission during the review period, the statutory review period shall begin again upon the receipt of a revised submission.

(c) The State and EPA may extend the statutory review period by agreement.

(d) Within 10 days of receipt of a complete State section 404 program submission, the Regional Administrator shall provide copies of the State's submission to the Corps, FWS, and NMFS (both Headquarters and appropriate Regional organizations.)

(e) After determining that a State program submission is complete, the Regional Administrator shall publish notice of the State's application in the FEDERAL REGISTER and in enough of the largest newspapers in the State to attract statewide attention. The Regional Administrator shall also mail notice to persons known to be interested in such matters. Existing State, EPA, Corps, FWS, and NMFS mailing lists shall be used as a basis for this mailing. However, failure to mail all such notices shall not be grounds for invalidating approval (or disapproval) of an otherwise acceptable (or unacceptable) program. This notice shall:

(1) Provide for a comment period of not less than 45 days during which interested members of the public may express their views on the State program.

(2) Provide for a public hearing within the State to be held not less than 30 days after notice of hearing is published in the FEDERAL REGISTER;

(3) Indicate where and when the State's submission may be reviewed by the public;

(4) Indicate whom an interested member of the public with questions should contact; and

(5) Briefly outline the fundamental aspects of the State's proposed program and the process for EPA review and decision.

(f) Within 90 days of EPA's receipt of a complete program submission, the Corps, FWS, and NMFS shall submit to EPA any comments on the State's program.

(g) Within 120 days of receipt of a complete program submission (unless an extension is agreed to by the State), the Regional Administrator shall approve or disapprove the program based on whether the State's program fulfills the requirements of this part and the Act, taking into consideration all comments received. The Regional Administrator shall prepare a responsiveness summary of significant comments received and his response to these comments. The Regional Administrator shall respond individually to comments received from the Corps, FWS, and NMFS.

(h) If the Regional Administrator approves the State's section 404 program, he shall notify the State and the Secretary of the decision and publish notice in the FEDERAL REGISTER. Transfer of the program to the State shall not be considered effective until such notice appears in the FEDERAL REGISTER. The Secretary shall suspend the issuance by the Corps of section 404 permits in State regulated waters on such effective date.

(i) If the Regional Administrator disapproves the State's program based on the State not meeting the requirements of the Act and this part, the Regional Administrator shall notify the State of the reasons for the disapproval and of any revisions or modifications to the State's program which are necessary to obtain approval. If the State resubmits a program submission remedying the identified problem areas, the approval procedure and statutory review period shall begin upon receipt of the revised submission.

§ 233.16 Procedures for revision of State programs.

(a) The State shall keep the Regional Administrator fully informed of any proposed or actual changes to the State's statutory or regulatory authority or any other modifications which are significant to administration of the program.

(b) Any approved program which requires revision because of a modification to this part or to any other applicable Federal statute or regulation shall be revised within one year of the date of promulgation of such regulation, except that if a State must amend or enact a statute in order to make the required revision, the revision shall take place within two years.

(c) States with approved programs shall notify the Regional Administrator whenever they propose to transfer all or part of any program from the approved State agency to any other State agency. The new agency is not authorized to administer the program until approved by the Regional Administrator under paragraph (d) of this section.

(d) Approval of revision of a State program shall be accomplished as follows:

(1) The Director shall submit a modified program description or other documents which the Regional Administrator determines to be necessary to evaluate whether the program complies with the requirements of the Act and this part.

(2) Notice of approval of program changes which are not substantial revisions may be given by letter from the Regional Administrator to the Governor or his designee.

(3) Whenever the Regional Administrator determines that the proposed revision is substantial, he shall publish and circulate notice to those persons known to be interested in such matters, provide opportunity for a public hearing, and consult with the Corps, FWS, and NMFS. The Regional Administrator shall approve or disapprove program revisions based on whether the program fulfills the requirements of the Act and this part, and shall publish notice of his decision in the FEDERAL REGISTER. For purposes of this paragraph, substantial revisions include, but are not limited to, revisions that affect the area of jurisdiction, scope of activities regulated, criteria for review of permits, public participation, or enforcement capability.

(4) Substantial program changes shall become effective upon approval by the Regional Administrator and publication of notice in the FEDERAL REGISTER.

(e) Whenever the Regional Administrator has reason to believe that circumstances have changed with respect to a State's program, he may request and the State shall provide a supplemental Attorney General's statement, program description, or such other documents or information as are necessary to evaluate the program's compliance with the requirements of the Act and this part.

Subpart C—Permit Requirements

§ 233.20 Prohibitions.

No permit shall be issued by the Director in the following circumstances:

(a) When permit does not comply with the requirements of the Act or regulations thereunder, including the section 404(b)(1) Guidelines (Part 230 of this Chapter).

(b) When the Regional Administrator has objected to issuance of the permit under § 233.50 and the objection has not been resolved.

(c) When the proposed discharges would be in an area which has been prohibited, withdrawn, or denied as a disposal site by the Administrator under section 404(c) of the Act, or when the discharge would fail to comply with a restriction imposed thereunder.

(d) If the Secretary determines, after consultation with the Secretary of the Department in which the Coast Guard is operating, that anchorage and navigation of any of the navigable waters would be substantially impaired.

§ 233.21 General permits.

(a) Under section 404(h)(5) of the Act, States may, after program approval, administer and enforce general permits previously issued by the Secretary in State regulated waters.

NOTE: If States intend to assume existing general permits, they must be able to ensure compliance with existing permit conditions an any reporting monitoring, or prenotification requirements.

(b) The Director may issue a general permit for categories of similar activities if he determines that the regulated activities will cause only minimal adverse environmental effects when performed separately and will have only minimal cumulative adverse effects on the environment. Any general permit issued shall be in compliance with the section 404(b)(1) Guidelines.

(c) In addition to the conditions specified in § 233.23, each general permit shall contain:

(1) A specific description of the type(s) of activities which are authorized, including limitations for any single operation. The description shall

be detailed enough to ensure that the requirements of paragraph (b) of this section are met. (This paragraph supercedes § 233.23(c)(1) for general permits.)

(2) A precise description of the geographic area to which the general permit applies, including limitations on the type(s) of water where operations may be conducted sufficient to ensure that the requirements of paragraph (b) of this section are met.

(d) Predischarge notification or other reporting requirements may be required by the Director on a permit-by-permit basis as appropriate to ensure that the general permit will comply with the requirement (section 404(e) of the Act) that the regulated activities will cause only minimal adverse environmental effects when performed separately and will have only minimal cumulative adverse effects on the environment.

(e) The Director may, without revoking the general permit, require any person authorized under a general permit to apply for an individual permit. This discretionary authority will be based on concerns for the aquatic environment including compliance with paragraph (b) of this section and the 404(b)(1) Guidelines (40 CFR Part 230.)

(1) This provision in no way affects the legality of activities undertaken pursuant to the general permit prior to notification by the Director of such requirement.

(2) Once the Director notifies the discharger of his decision to exercise discretionary authority to require an individual permit, the discharger's activity is no longer authorized by the general permit.

§ 233.22 Emergency permits.

(a) Notwithstanding any other provision of this part, the Director may issue a temporary emergency permit for a discharge of dredged or fill material if unacceptable harm to life or severe loss of physical property is likely to occur before a permit could be issued or modified under procedures normally required.

(b) Emergency permits shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of § 233.23.

(1) Any emergency permit shall be limited to the duration of time (typically no more than 90 days) required to complete the authorized emergency action.

(2) The emergency permit shall have a condition requiring appropriate restoration of the site.

(c) The emergency permit may be terminated at any time without process (§ 233.36) if the Director determines that termination is necessary to protect human health or the environment.

(d) The Director shall consult in an expeditious manner, such as by telephone, with the Regional Administrator, the Corps, FWS, and NMFS about issuance of an emergency permit.

(e) The emergency permit may be oral or written. If oral, it must be followed within 5 days by a written emergency permit. A copy of the written permit shall be sent to the Regional Administrator.

(f) Notice of the emergency permit shall be published and public comments solicited in accordance with § 233.32 as soon as possible but no later than 10 days after the issuance date.

§ 233.23 Permit conditions.

(a) For each permit the Director shall establish conditions which assure compliance with all applicable statutory and regulatory requirements, including the 404(b)(1) Guidelines, applicable section 303 water quality standards, and applicable section 307 effluent standards and prohibitions.

(b) Section 404 permits shall be effective for a fixed term not to exceed 5 years.

(c) Each 404 permit shall include conditions meeting or implementing the following requirements:

(1) A specific identification and complete description of the authorized activity including name and address of permittee, location and purpose of discharge, type and quantity of material to be discharged. (This subsection is not applicable to general permits).

(2) Only the activities specifically described in the permit are authorized.

(3) The permittee shall comply with all conditions of the permit even if that requires halting or reducing the permitted activity to maintain compliance. Any permit violation constitutes a violation of the Act as well as of State statute and/or regulation.

(4) The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit.

(5) The permittee shall inform the Director of any expected or known actual noncompliance.

(6) The permittee shall provide such information to the Director, as the Director requests, to determine compliance status, or whether cause exists for permit modification, revocation or termination.

(7) Monitoring, reporting and recordkeeping requirements as needed to safeguard the aquatic environment. (Such requirements will be determined on a case-by-case basis, but at a minimum shall include monitoring and reporting of any expected leachates, reporting of noncompliance, planned changes or transfer of the permit.)

(8) Inspection and entry. The permittee shall allow the Director, or his authorized representative, upon presentation of proper identification, at reasonable times to:

(i) Enter upon the permittee's premises where a regulated activity is located or where records must be kept under the conditions of the permit,

(ii) Have access to and copy any records that must be kept under the conditions of the permit,

(iii) Inspect operations regulated or required under the permit, and

(iv) Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

(9) Conditions assuring that the discharge will be conducted in a manner which minimizes adverse impacts upon the physical, chemical and biological integrity of the waters of the United States, such as requirements for restoration or mitigation.

Subpart D—Program Operation

§ 233.30 Application for a permit.

(a) Except when an activity is authorized by a general permit issued pursuant to § 233.21 or is exempt from the requirements to obtain a permit under § 232.3, any person who proposes to discharge dredged or fill material into State regulated waters shall complete, sign and submit a permit application to the Director. Persons proposing to discharge dredged or fill material under the authorization of a general permit must comply with any reporting requirements of the general permit.

(b) A complete application shall include:

(1) Name, address, telephone number of the applicant and name(s) and address(es) of adjoining property owners.

(2) A complete description of the proposed activity including necessary drawings, sketches or plans sufficient for public notice (the applicant is not generally expected to submit detailed engineering plans and specifications); the location, purpose and intended use of the proposed activity; scheduling of the activity; the location and dimensions of adjacent structures; and a list of authorizations required by other Federal, interstate, State or local agencies for the work, including all approvals received or denials already made.

(3) The application must include a description of the type, composition, source and quantity of the material to be discharged, the method of discharge, and the site and plans for disposal of the dredged or fill material.

(4) A certification that all information contained in the application is true and accurate and acknowledging awareness of penalties for submitting false information.

(5) All activities which the applicant plans to undertake which are reasonably related to the same project should be included in the same permit application.

(c) In addition to the information indicated in § 233.30(b), the applicant will be required to furnish such additional information as the Director deems appropriate to assist in the evaluation of the application. Such additional information may include environmental data and information on alternate methods and sites as may be necessary for the preparation of the required environmental documentation.

(d) The level of detail shall be reasonably commensurate with the type and size of discharge, proximity to critical areas, likelihood of long-lived toxic chemical substances, and potential level of environmental degradation.

NOTE: EPA encourages States to provide permit applicants guidance regarding the level of detail of information and documentation required under this subsection. This guidance can be provided either through the application form or on an individual basis. EPA also encourages the State to maintain a program to inform potential applicants for permits of the requirements of the State program and of the steps required to obtain permits for activities in State regulated waters.

§ 233.31 Coordination requirements.

(a) If a proposed discharge may affect the biological, chemical, or physical integrity of the waters of any State(s) other than the State in which the discharge occurs, the Director shall provide an opportunity for such State(s) to submit written comments within the public comment period and to suggest permit conditions. If these recommendations are not accepted by the Director, he shall notify the affected State and the Regional Administrator prior to permit issuance in writing of his failure to accept these recommendations, together with his reasons for so doing. The Regional Administrator shall then have the time provided for in § 233.50(d) to comment upon, object to, or make recommendations.

(b) State section 404 permits shall be coordinated with Federal and Federal-State water related planning and review processes.

§ 233.32 Public notice.

(a) Applicability.

(1) The Director shall give public notice of the following actions:

(i) Receipt of a permit application.

(ii) Preparation of a draft general permit.

(iii) Consideration of a major modification to an issued permit.

(iv) Scheduling of a public hearing.

(v) Issuance of an emergency permit.

(2) Public notices may describe more than one permit or action.

(b) Timing.

(1) The public notice shall provide a reasonable period of time, normally at least 30 days, within which interested parties may express their views concerning the permit application.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing.

(3) The Regional Administrator may approve a program with shorter public notice timing if the Regional Administrator determines that sufficient public notice is provided for.

(c) The Director shall give public notice by each of the following methods:

(1) By mailing a copy of the notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his rights to receive notice for any classes or categories of permits):

(i) The applicant.

(ii) Any agency with jurisdiction over the activity or the disposal site, whether or not the agency issues a permit.

(iii) Owners of property adjoining the property where the regulated activity will occur.

(iv) All persons who have specifically requested copies of public notices. (The Director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Director may delete from the list the name of any person who fails to respond to such a request.)

(v) Any State whose waters may be affected by the proposed discharge.

(2) In addition, by providing notice in at least one other way (such as advertisement in a newspaper of sufficient circulation) reasonably calculated to cover the area affected by the activity.

(d) All public notices shall contain at least the following information:

(1) The name and address of the applicant and, if different, the address or location of the activity(ies) regulated by the permit.

(2) The name, address, and telephone number of a person to contact for further information.

(3) A brief description of the comment procedures and procedures to request a public hearing, including deadlines.

(4) A brief description of the proposed activity, its purpose and intended use, so as to provide sufficient information concerning the nature of the activity to generate meaningful comments, including a description of the type of structures, if any, to be erected on fills, and a description of the type, composition and quantity of materials to be discharged.

(5) A plan and elevation drawing showing the general and specific site location and character of all proposed activities, including the size relationship of the proposed structures to the size of the impacted waterway and depth of water in the area.

(6) A paragraph describing the various evaluation factors, including the 404(b)(1) Guidelines or State-equivalent criteria, on which decisions are based.

(7) Any other information which would significantly assist interested parties in evaluating the likely impact of the proposed activity.

(e) Notice of public hearing shall also contain the following information:

(1) Time, date, and place of hearing.

(2) Reference to the date of any previous public notices relating to the permit.

(3) Brief description of the nature and purpose of the hearing.

§ 233.33 Public hearing.

(a) Any interested person may request a public hearing during the public comment period as specified in § 233.32. Requests shall be in writing and shall state the nature of the issues proposed to be raised at the hearing.

(b) The Director shall hold a public hearing whenever he determines there is a significant degree of public interest in a permit application or a draft general permit. He may also hold a hearing, at his discretion, whenever he determines a hearing may be useful to a decision on the permit application.

(c) At a hearing, any person may submit oral or written statements or data concerning the permit application or draft general permit. The public comment period shall automatically be extended to the close of any public hearing under this section. The presiding officer may also extend the comment period at the hearing.

(d) All public hearings shall be reported verbatim. Copies of the record of proceedings may be purchased by any person from the Director or the reporter of such hearing. A copy of the transcript (or if none is prepared, a tape of the proceedings) shall be made available for public inspection at an appropriate State office.

§ 233.34 Making a decision on the permit application.

(a) The Director will review all applications for compliance with the 404(b)(1) Guidelines and/or equivalent State environmental criteria as well as any other applicable State laws or regulations.

(b) The Director shall consider all comments received in response to the public notice, and public hearing if a hearing is held. All comments, as well as the record of any public hearing, shall be made part of the official record on the application.

(c) After the Director has completed his review of the application and consideration of comments, the Director will determine, in accordance with the record and all applicable regulations, whether or not the permit should be issued. No permit shall be issued by the Director under the circumstances described in § 233.20. The Director shall prepare a written determination on each application outlining his decision and rationale for his decision. The determination shall be dated, signed and included in the official record prior to final action on the application. The official record shall be open to the public.

§ 233.35 Issuance and effective date of permit.

(a) If the Regional Administrator comments on a permit application or draft general permit under § 233.50, the Director shall follow the procedures specified in that section in issuing the permit.

(b) If the Regional Administrator does not comment on a permit application or draft general permit, the Director shall make a final permit decision after the close of the public comment period and shall notify the applicant.

(1) If the decision is to issue a permit, the permit becomes effective when it is signed by the Director and the applicant.

(2) If the decision is to deny the permit, the Director will notify the applicant in writing of the reason(s) for denial.

§ 233.36 Modification, suspension or revocation of permits.

(a) *General*. The Director may reevaluate the circumstances and conditions of a permit either on his own motion or at the request of the permittee or of a third party and initiate action to modify, suspend, or revoke a permit if he determines that sufficient cause exists. Among the factors to be considered are:

(1) Permittee's noncompliance with any of the terms or conditions of the permit;

(2) Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at the time;

(3) Information that activities authorized by a general permit are having more than minimal individual or cumulative adverse effect on the environment, or that the permitted activities are more appropriately regulated by individual permits;

(4) Circumstances relating to the authorized activity have changed since the permit was issued and justify changed permit conditions or temporary or permanent cessation of any discharge controlled by the permit;

(5) Any significant information relating to the activity authorized by the permit if such information was not available at the time the permit was issued and would have justified the imposition of different permit conditions or denial at the time of issuance;

(6) Revisions to applicable statutory or regulatory authority, including toxic effluent standards or prohibitions or water quality standards.

(b) *Limitations*. Permit modifications shall be in compliance with § 233.20.

(c) *Procedures*. (1) The Director shall develop procedures to modify, suspend or revoke permits if he determines cause exists for such action (§ 233.36(a)). Such procedures shall provide opportunity for public comment (§ 233.32), coordination with the Federal review agencies (§ 233.50), and opportunity for public hearing (§ 233.33) following notification of the permittee. When permit modification is proposed, only the conditions subject to modification need be reopened.

(2) Minor modification of permits. The Director may, upon the consent of the permittee, use abbreviated procedures to modify a permit to make the following corrections or allowance for changes in the permitted activity:

(i) Correct typographical errors;

(ii) Require more frequent monitoring or reporting by permittee;

(iii) Allow for a change in ownership or operational control of a project or activity where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director;

(iv) Provide for minor modification of project plans that do not significantly change the character, scope, and/or purpose of the project or result in significant change in environmental impact;

(v) Extend the term of a permit, so long as the modification does not extend the term of the permit beyond 5 years from its original effective date and does not result in any increase in the amount of dredged or fill material allowed to be discharged.

§ 233.37 Signatures on permit applications and reports.

The application and any required reports must be signed by the person who desires to undertake the proposed activity or by that person's duly authorized agent if accompanied by a statement by that person designating the agent. In either case, the signature of the applicant or the agent will be understood to be an affirmation that he possesses or represents the person who possesses the requisite property interest to undertake the activity proposed in the application.

§ 233.38 Continuation of expiring permits.

A Corps 404 permit does not continue in force beyond its expiration date under Federal law if, at that time, a State is the permitting authority. States authorized to administer the 404 Program may continue Corps or State-issued permits until the effective date of the new permits, if State law allows. Otherwise, the discharge is being conducted without a permit from the time of expiration of the old permit to the effective date of a new State-issued permit, if any.

Subpart E—Compliance Evaluation and Enforcement

§ 233.40 Requirements for compliance evaluation programs.

(a) In order to abate violations of the permit program, the State shall maintain a program designed to identify persons subject to regulation who have failed to obtain a permit or to comply with permit conditions.

(b) The Director and State officers engaged in compliance evaluation, upon presentation of proper identification, shall have authority to enter any site or premises subject to regulation or in which records relevant to program operation are kept in order to copy any records, inspect, monitor or otherwise investigate compliance with the State program.

(c) The State program shall provide for inspections to be conducted, samples to be taken and other information to be gathered in a manner that will produce evidence admissible in an enforcement proceeding.

(d) The State shall maintain a program for receiving and ensuring proper consideration of information submitted by the public about violations.

§ 233.41 Requirements for enforcement authority.

(a) Any State agency administering a program shall have authority:

(1) To restrain immediately and effectively any person from engaging in any unauthorized activity;

(2) To sue to enjoin any threatened or continuing violation of any program requirement;

(3) To assess or sue to recover civil penalties and to seek criminal remedies, as follows:

(i) The agency shall have the authority to assess or recover civil penalties for discharges of dredged or fill material without a required permit or in violation of any section 404 permit condition in an amount of at least $5,000 per day of such violation.

(ii) The agency shall have the authority to seek criminal fines against any person who willfully or with criminal negligence discharges dredged or fill material without a required permit or violates any permit condition issued under section 404 in the amount of at least $10,000 per day of such violation.

(iii) The agency shall have the authority to seek criminal fines against any person who knowingly makes false statements, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, these regulations or the approved State program, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit, in an amount of at least $5,000 for each instance of violation.

(b)(1) The approved maximum civil penalty or criminal fine shall be assessable for each violation and, if the violation is continuous, shall be assessable in that maximum amount for each day of violation.

(2) The burden of proof and degree of knowledge or intent required under State law for establishing violations

under paragraph (a)(3) of this section, shall be no greater than the burden of proof or degree of knowledge or intent EPA must bear when it brings an action under the Act.

(c) The civil penalty assessed, sought, or agreed upon by the Director under paragraph (a)(3) of this section shall be appropriate to the violation.

NOTE: To the extent that State judgments or settlements provide penalties in amounts which EPA believes to be substantially inadequate in comparison to the amounts which EPA would require under similar facts, EPA may, when authorized by section 309 of the Act, commence separate action for penalties.

(d)(1) The Regional Administrator may approve a State program where the State lacks authority to recover penalties of the levels required under paragraphs (a)(3)(i)-(iii) of this section only if the Regional Administrator determines, after evaluating a record of at least one year for an alternative enforcement program, that the State has an alternate, demonstrably effective method of ensuring compliance which has both punitive and deterrence effects.

(2) States whose programs were approved via waiver of monetary penalties shall keep the Regional Administrator informed of all enforcement actions taken under any alternative method approved pursuant to paragraph (d)(1) of this section. The manner of reporting will be established in the Memorandum of Agreement with the Regional Administrator (§ 233.13).

(e) Any State administering a program shall provide for public participation in the State enforcement process by providing either:

(1) Authority which allows intervention of right in any civil or administrative action to obtain remedies specified in paragraph (a)(3) of this section by any citizen having an interest which is or may be adversely affected, or

(2) Assurance that the State agency or enforcement authority will:

(i) Investigate and provide written responses to all citizen complaints submitted pursuant to State procedures;

(ii) Not oppose intervention by any citizen when permissive intervention may be authorized by statute, rule, or regulation; and

(iii) Publish notice of and provide at least 30 days for public comment on any proposed settlement of a State enforcement action.

Subpart F—Federal Oversight

§ 233.50 Review of and objection to State permits.

(a) The Director shall promptly transmit to the Regional Administrator:

(1) A copy of the public notice for any complete permit applications received by the Director, except those for which permit review has been waived under § 233.51. The State shall supply the Regional Administrator with copies of public notices for permit applications for which permit review has been waived whenever requested by EPA.

(2) A copy of a draft general permit whenever the State intends to issue a general permit.

(3) Notice of every significant action taken by the State agency related to the consideration of any permit application except those for which Federal review has been waived or draft general permit.

(4) A copy of every issued permit.

(5) A copy of the Director's response to another State's comments/recommendations, if the Director does not accept these recommendations (§ 233.32(a)).

(b) Unless review has been waived under § 233.51, the Regional Administrator shall provide a copy of each public notice, each draft general permit, and other information needed for review of the application to the Corps, FWS, and NMFS, within 10 days of receipt. These agencies shall notify the Regional Administrator within 15 days of their receipt if they wish to comment on the public notice or draft general permit. Such agencies should submit their evaluation and comments to the Regional Administrator within 50 days of such receipt. The final decision to comment, object or to require permit conditions shall be made by the Regional Administrator. (These times may be shortened by mutual agreement of the affected Federal agencies and the State.)

(c) If the information provided is inadequate to determine whether the permit application or draft general permit meets the requirements of the Act, these regulations, and the 404(b)(1) Guidelines, the Regional Administrator may, within 30 days of receipt, request the Director to transmit to the Regional Administrator the complete record of the permit proceedings before the State, or any portions of the record, or other information, including a supplemental application, that the Regional Administrator determines necessary for review.

(d) If the Regional Administrator intends to comment upon, object to, or make recommendations with respect to a permit application, draft general permit, or the Director's failure to accept the recommendations of an affected State submitted pursuant to § 233.31(a), he shall notify the Director of his intent within 30 days of receipt. If the Director has been so notified, the permit shall not be issued until after the receipt of such comments or 90 days of the Regional Administrator's receipt of the public notice, draft general permit or Director's response (§ 233.31(a)), whichever comes first. The Regional Administrator may notify the Director within 30 days of receipt that there is no comment but that he reserves the right to object within 90 days of receipt, based on any new information brought out by the public during the comment period or at a hearing.

(e) If the Regional Administrator has given notice to the Director under paragraph (d) of this section, he shall submit to the Director, within 90 days of receipt of the public notice, draft general permit, or Director's response (§ 233.31(a)), a written statement of his comments, objections, or recommendations; the reasons for the comments, objections, or recommendations; and the actions that must be taken by the Director in order to eliminate any objections. Any such objection shall be based on the Regional Administrator's determination that the proposed permit is (1) the subject of an interstate dispute under § 233.31(a) and/or (2) outside requirements of the Act, these regulations, or the 404(b)(1) Guidelines. The Regional Administrator shall make available upon request a copy of any comment, objection, or recommendation on a permit application or draft general permit to the permit applicant or to the public.

(f) When the Director has received an EPA objection or requirement for a permit condition to a permit application or draft general permit under this section, he shall not issue the permit unless he has taken the steps required by the Regional Administrator to eliminate the objection.

(g) Within 90 days of receipt by the Director of an objection or requirement for a permit condition by the Regional Administrator, the State or any interested person may request that the Regional Administrator hold a public hearing on the objection or requirement. The Regional Administrator shall conduct a public hearing whenever requested by the State proposing to issue the permit, or if warranted by significant public interest based on requests received.

(h) If a public hearing is held under paragraph (g) of this section, the Regional Administrator shall, following that hearing, reaffirm, modify or withdraw the objection or requirement for a permit condition, and notify the Director of this decision.

(1) If the Regional Administrator withdraws his objection or requirement for a permit condition, the Director may issue the permit.

(2) If the Regional Administrator does not withdraw the objection or requirement for a permit condition, the Director must issue a permit revised to satisfy the Regional Administrator's objection or requirement for a permit condition or notify EPA of its intent to deny the permit within 30 days of receipt of the Regional Administrator's notification.

(i) If no public hearing is held under paragraph (g) of this section, the Director within 90 days of receipt of the objection or requirement for a permit condition shall either issue the permit revised to satisfy EPA's objections or notify EPA of its intent to deny the permit.

(j) In the event that the Director neither satisfies EPA's objections or requirement for a permit condition nor denies the permit, the Secretary shall process the permit application.

[53 FR 20776, June 1, 1988; 53 FR 41649, Oct. 24, 1988]

§ 233.51 Waiver of review.

(a) The MOA with the Regional Administrator shall specify the categories of discharge for which EPA will waive Federal review of State permit applications. After program approval, the MOA may be modified to reflect any additions or deletions of categories of discharge for which EPA will waive review. The Regional Administrator shall consult with the Corps, FWS, and NMFS prior to specifying or modifying such categories.

(b) With the following exceptions, any category of discharge is eligible for consideration for waiver:

(1) Draft general permits;

(2) Discharges with reasonable potential for affecting endangered or threatened species as determined by FWS;

(3) Discharges with reasonable potential for adverse impacts on waters of another State;

(4) Discharges known or suspected to contain toxic pollutants in toxic amounts (section 101(a)(3) of the Act) or hazardous substances in reportable quantities (section 311 of the Act);

(5) Discharges located in proximity of a public water supply intake;

(6) Discharges within critical areas established under State or Federal law, including but not limited to National and State parks, fish and wildlife sanctuaries and refuges, National and historical monuments, wilderness areas and preserves, sites identified or proposed under the National Historic Preservation Act, and components of the National Wild and Scenic Rivers System.

(c) The Regional Administrator retains the right to terminate a waiver as to future permit actions at any time by sending the Director written notice of termination.

§ 233.52 Program reporting.

(a) The starting date for the annual period to be covered by reports shall be established in the Memorandum of Agreement with the Regional Administrator (§ 233.13.)

(b) The Director shall submit to the Regional Administrator within 90 days after completion of the annual period, a draft annual report evaluating the State's administration of its program identifying problems the State has encountered in the administration of its program and recommendations for resolving these problems. Items that shall be addressed in the annual report include an assessment of the cumulative impacts of the State's permit program on the integrity of the State regulated waters; identification of areas of particular concern and/or interest within the State; the number and nature of individual and general permits issued, modified, and denied; number of violations identified and number and nature of enforcement actions taken; number of suspected unauthorized activities reported and nature of action taken; an estimate of extent of activities regulated by general permits; and the number of permit applications received but not yet processed.

(c) The State shall make the draft annual report available for public inspection.

(d) Within 60 days of receipt of the draft annual report, the Regional Administrator will complete review of the draft report and transmit comments, questions, and/or requests for additional evaluation and/or information to the Director.

(e) Within 30 days of receipt of the Regional Administrator's comments, the Director will finalize the annual report, incorporating and/or responding to the Regional Administrator's comments, and transmit the final report to the Regional Administrator.

(f) Upon acceptance of the annual report, the Regional Administrator shall publish notice of availability of the final annual report.

§ 233.53 Withdrawal of program approval.

(a) A State with a program approved under this part may voluntarily transfer program responsibilities required by Federal law to the Secretary by taking the following actions, or in such other manner as may be agreed upon with the Administrator.

(1) The State shall give the Administrator and the Secretary 180 days notice of the proposed transfer. The State shall also submit a plan for the orderly transfer of all relevant program information not in the possession of the Secretary (such as permits, permit files, reports, permit applications) which are necessary for the Secretary to administer the program.

(2) Within 60 days of receiving the notice and transfer plan, the Administrator and the Secretary shall evaluate the State's transfer plan and shall identify for the State any additional information needed by the Federal government for program administration.

(3) At least 30 days before the transfer is to occur the Administrator shall publish notice of transfer in the Federal Register and in a sufficient number of the largest newspapers in the State to provide statewide coverage, and shall mail notice to all permit holders, permit applicants, other regulated persons and other interested persons on appropriate EPA, Corps and State mailing lists.

(b) The Administrator may withdraw program approval when a State program no longer complies with the requirements of this part, and the State fails to take corrective action. Such circumstances include the following:

(1) When the State's legal authority no longer meets the requirements of this part, including:

(i) Failure of the State to promulgate or enact new authorities when necessary; or

(ii) Action by a State legislature or court striking down or limiting State authorities.

(2) When the operation of the State program fails to comply with the requirements of this part, including:

(i) Failure to exercise control over activities required to be regulated under this part, including failure to issue permits;

(ii) Issuance of permits which do not conform to the requirements of this part; or

(iii) Failure to comply with the public participation requirements of this part.

(3) When the State's enforcement program fails to comply with the requirements of this part, including:

(i) Failure to act on violations of permits or other program requirements;

(ii) Failure to seek adequate enforcement penalties or to collect administrative fines when imposed, or to implement alternative enforcement methods approved by the Administrator; or

(iii) Failure to inspect and monitor activities subject to regulation.

(4) When the State program fails to comply with the terms of the Memorandum of Agreement required under § 233.13.

(c) The following procedures apply when the Administrator orders the commencement of proceedings to determine whether to withdraw approval of a State program:

(1) *Order.* The Administrator may order the commencement of withdrawal proceedings on the Administrator's initiative or in response to a petition from an interested person alleging failure of the State to comply with the requirements of this part as set forth in subsection (b) of this section. The Administrator shall respond in writing to any petition to commence withdrawal proceedings. He may conduct an informal review of the allegations in the petition to determine whether cause exists to commence proceedings under this paragraph. The Administrator's order commencing proceedings under this paragraph shall fix a time and place for the commencement of the hearing, shall specify the allegations against the State which are to be considered at the hearing, and shall be published in the Federal Register. Within 30 days after publication of the Administrator's order in the Federal Register, the State shall admit or deny these allegations in a written answer. The party seeking withdrawal of the State's program shall have the burden of coming forward with the evidence in a hearing under this paragraph.

(2) *Definitions.* For purposes of this paragraph the definition of "Administrative Law Judge," "Hearing Clerk,"

and "Presiding Officer" in 40 CFR 22.03 apply in addition to the following:

(i) "Party" means the petitioner, the State, the Agency, and any other person whose request to participate as a party is granted.

(ii) "Person" means the Agency, the State and any individual or organization having an interest in the subject matter of the proceedings.

(iii) "Petitioner" means any person whose petition for commencement of withdrawal proceedings has been granted by the Administrator.

(3) *Procedures.*

(i) The following provisions of 40 CFR Part 22 [Consolidated Rules of Practice] are applicable to proceedings under this paragraph:

(A) Section 22.02—(use of number/gender);

(B) Section 22.04—(authorities of Presiding Officer);

(C) Section 22.06—(filing/service of rulings and orders);

(D) Section 22.09—(examination of filed documents);

(E) Section 22.19 (a), (b) and (c)—(prehearing conference);

(F) Section 22.22—(evidence);

(G) Section 22.23—(objections/offers of proof);

(H) Section 22.25—(filing the transcript; and

(I) Section 22.26—(findings/conclusions).

(ii) The following provisions are also applicable:

(A) Computation and extension of time.

(*1*) *Computation.* In computing any period of time prescribed or allowed in these rules of practice, except as otherwise provided, the day of the event from which the designated period begins to run shall not be included. Saturdays, Sundays, and Federal legal holidays shall be included. When a stated time expires on a Saturday, Sunday or Federal legal holiday, the stated time period shall be extended to include the next business day.

(*2*) *Extensions of time.* The Administrator, Regional Administrator, or Presiding Officer, as appropriate, may grant an extension of time for the filing of any pleading, document, or motion (*i*) upon timely motion of a party to the proceeding, for good cause shown and after consideration of prejudice to other parties, or (*ii*) upon his own motion. Such a motion by a party may only be made after notice to all other parties, unless the movant can show good cause why serving notice is impracticable. The motion shall be filed in advance of the date on which the pleading, document or motion is due to be filed, unless the failure of a party to make timely motion for extension of time was the result of excusable neglect.

(*3*) The time for commencement of the hearing shall not be extended beyond the date set in the Administrator's order without approval of the Administrator.

(B) Ex parte discussion of proceeding. At no time after the issuance of the order commencing proceedings shall the Administrator, Regional Administrator, Judicial Officer, Regional Judicial Officer, Presiding Officer, or any other person who is likely to advise these officials in the decisions on the case, discuss ex parte the merits of the proceeding with any interested person outside the Agency, with any Agency staff member who performs a prosecutorial or investigative function in such proceeding or a factually related proceeding, or with any representative of such person. Any ex parte memorandum or other communication addressed to the Administrator, Regional Administrator, Judicial Officer, Regional Judicial Officer, or the Presiding Officer during the pendency of the proceeding and relating to the merits thereof, by or on behalf of any party shall be regarded as argument made in the proceeding and shall be served upon all other parties. The other parties shall be given an opportunity to reply to such memorandum or communication.

(C) Intervention.

(*1*) *Motion.* A motion for leave to intervene in any proceeding conducted under these rules of practice must set forth the grounds for the proposed intervention, the position and interest of the movant and the likely impact that intervention will have on the expeditious progress of the proceeding. Any person already a party to the proceeding may file an answer to a motion to intervene, making specific reference to the factors set forth in the foregoing sentence and paragraph (b)(3)(ii)(C)(*3*) of this section, within ten (10) days after service of the motion for leave to intervene.

(*2*) However, motions to intervene must be filed within 15 days from the date the notice of the Administrator's order is published in the FEDERAL REGISTER.

(*3*) *Disposition.* Leave to intervene may be granted only if the movant demonstrates that (*i*) his presence in the proceeding would not unduly prolong or otherwise prejudice the adjudication of the rights of the original parties; (*ii*) the movant will be adversely affected by a final order; and (*iii*) the interests of the movant are not being adequately represented by the original parties. The intervenor shall become a full party to the proceeding upon the granting of leave to intervene.

(*4*) *Amicus curiae.* Persons not parties to the proceeding who wish to file briefs may so move. The motion shall identify the interest of the applicant and shall state the reasons why the proposed amicus brief is desirable. If the motion is granted, the Presiding Officer or Administrator shall issue an order setting the time for filing such brief. An amicus curiae is eligible to participate in any briefing after his motion is granted, and shall be served with all briefs, reply briefs, motions, and orders relating to issues to be briefed.

(*D*) Motions—(*1*) *General.* All motions, except those made orally on the record during a hearing, shall (*i*) be in writing; (*ii*) state the grounds therefore with particularity; (*iii*) set forth the relief or order sought; and (*iv*) be accompanied by any affidavit, certificate, other evidence, or legal memorandum relied upon. Such motions shall be served as provided by paragraph (b)(4) of this section.

(*2*) *Response to motions.* A party's response to any written motion must be filed within ten (10) days after service of such motion, unless additional time is allowed for such response. The response shall be accompanied by any affidavit, certificate, other evidence, or legal memorandum relied upon. If no response is filed within the designated period, the parties may be deemed to have waived any objection to the granting of the motion. The Presiding Officer, Regional Administrator, or Administrator, as appropriate, may set a shorter time for response, or make such other orders concerning the disposition of motions as they deem appropriate.

(*3*) *Decision.* The Administrator shall rule on all motions filed or made after service of the recommended decision upon the parties. The Presiding Officer shall rule on all other motions. Oral argument on motions will be permitted where the Presiding Officer, Regional Administrator, or the Administrator considers it necessary or desirable.

(*4*) *Record of proceedings.* (*i*) The hearing shall be either stenographically reported verbatim or tape recorded, and thereupon transcribed by an official reporter designated by the Presiding Officer;

(*ii*) All orders issued by the Presiding Officer, transcripts of testimony, written statements of position, stipulations, exhibits, motions, briefs, and other written material of any kind submitted in the hearing shall be a part of the record and shall be available for inspection or copying in the Office of the Hearing Clerk, upon payment of costs. Inquiries may be made at the Office of the Administrative Law Judges, Hearing Clerk, 401 M Street SW., Washington, DC 20460;

(*iii*) Upon notice to all parties the Presiding Officer may authorize corrections to the transcript which involve matters of substance;

(*iv*) An original and two (2) copies of all written submissions to the hearing shall be filed with the Hearing Clerk;

(*v*) A copy of each such submission shall be served by the person making the submission upon the Presiding Officer and each party of record. Service under this paragraph shall take place by mail or personal delivery;

(*vi*) Every submission shall be accompanied by acknowledgement of service by the person served or proof of service in the form of a statement of the date, time, and manner of service and the names of the persons served, certified by the person who made service; and (*vii*) The Hearing Clerk shall maintain and furnish to any person upon request, a list containing the name, service address, and telephone number of all parties and their attorneys or duly authorized representatives.

(5) *Participation by a person not a party.* A person who is not a party may, in the discretion of the Presiding Officer, be permitted to make a limited appearance by making an oral or written statement of his/her position on the issues within such limits and on such conditions as may be fixed by the Presiding Officer, but he/she may not otherwise participate in the proceeding.

(6) *Rights of parties.* (i) All parties to the proceeding may:

(A) Appear by counsel or other representative in all hearing and prehearing proceedings;

(B) Agree to stipulations of facts which shall be made a part of the record.

(7) *Recommended decision.* (i) Within 30 days after the filing of proposed findings and conclusions and reply briefs, the Presiding Officer shall evaluate the record before him/her, the proposed findings and conclusions and any briefs filed by the parties, and shall prepare a recommended decision, and shall certify the entire record, including the recommended decision, to the Administrator.

(ii) Copies of the recommended decision shall be served upon all parties.

(iii) Within 20 days after the certification and filing of the record and recommended decision, all parties may file with the Administrator exceptions to the recommended decision and a supporting brief.

(8) *Decision by Administrator.* (i) Within 60 days after certification of the record and filing of the Presiding Officer's recommended decision, the Administrator shall review the record before him and issue his own decision.

(ii) If the Administrator concludes that the State has administered the program in conformity with the Act and this part, his decision shall constitute "final agency action" within the meaning of 5 U.S.C. 704.

(iii) If the Administrator concludes that the State has not administered the program in conformity with the Act and regulations, he shall list the deficiencies in the program and provide the State a reasonable time, not to exceed 90 days, to take such appropriate corrective action as the Administrator determines necessary.

(iv) Within the time prescribed by the Administrator the State shall take such appropriate corrective action as required by the Administrator and shall file with the Administrator and all parties a statement certified by the State Director that appropriate corrective action has been taken.

(v) The Administrator may require a further showing in addition to the certified statement that corrective action has been taken.

(vi) If the state fails to take appropriate corrective action and file a certified statement thereof within the time prescribed by the Administrator, the Administrator shall issue a supplementary order withdrawing approval of the State program. If the State takes appropriate corrective action, the Administrator shall issue a supplementary order stating that approval of authority is not withdrawn.

(vii) The Administrator's supplementary order shall constitute final Agency action within the meaning of 5 U.S. 704.

(d) Withdrawal of authorization under this section and the Act does not relieve any person from complying with the requirements of State law, nor does it affect the validity of actions taken by the State prior to withdrawal.

Subpart G—Approved State Programs

§ 233.60 Michigan.

The applicable regulatory program for discharges of dredged or fill material into waters of the United States in Michigan that are not presently used, or susceptible for use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to the ordinary high water mark, including wetlands adjacent thereto, except those on Indian lands, is the program administered by the Michigan Department of Natural Resources, approved by EPA, pursuant to section 404 of the CWA. Notice of this approval was published in the FEDERAL REGISTER on October 2, 1984; the effective date of this program is October 16, 1984. This program consists of the following elements, as submitted to EPA in the State's program application.

(a) *Incorporation by reference.* The requirements set forth in the State statutes and regulations cited in this paragraph are hereby incorporated by reference and made a part of the applicable 404 Program under the CWA for the State of Michigan. This incorporation by reference was approved by the Director of the Federal Register on October 16, 1984.

(1) The Great Lakes Submerged Lands Act, MCL 322.701 *et seq.*, reprinted in Michigan 1983 Natural Resources Law.

(2) The Water Resources Commission Act, MCL 323.1 *et seq.*, reprinted in Michigan 1983 Natural Resources Law.

(3) The Goemaere-Anderson Wetland Protection Act, MCL 281.701 *et seq.*, reprinted in Michigan 1983 Natural Resources Law.

(4) The Inland Lakes and Stream Act, MCL 281.951 *et seq.*, reprinted in Michigan 1983 Natural Resources Law.

(5) The Michigan Administrative Procedures Act of 1969, MCL 24-201 *et seq.*

(6) An act concerning the Erection of Dams, MCL 281.131 *et seq.*, reprinted in Michigan 1983 Natural Resources Law.

(7) R 281.811 through R 281.819 inclusive, R 281.821, R 281.823, R 281.824, R 281.832 through R 281.839 inclusive, and R 281.841 through R 281.845 inclusive of the Michigan Administrative Code (1979 ed., 1982 supp.).

(b) *Other Laws.* The following statutes and regulations, although not incorporated by reference, also are part of the approved State-administered program:

(1) Administrative Procedures Act, MCLA 24.201 *et seq.*

(2) Freedom of Information Act, MCLA 15.231 *et seq.*

(3) Open Meetings Act, MCLA 15.261 *et seq.*

(4) Michigan Environmental Protection Act, MCLA 691.1201 *et seq.*

(c) *Memoranda of Agreement.* (1) The Memorandum of Agreement between EPA Region V and the Michigan Department of Natural resources, signed by the EPA Region V Administrator on December 9, 1983.

(2) The Memorandum of Agreement between the U.S. Army Corps of Engineers and the Michigan Department of Natural Resources, signed by the Commander, North Central Division, on March 27, 1984.

(d) *Statement of Legal Authority.* (1) "Attorney General Certification section 404/State of Michigan", signed by Attorney General of Michigan, as submitted with the request for approval of "The State of Michigan 404 Program", October 26, 1983.

(e) The Program description and any other materials submitted as part of the original application or supplements thereto.

(33 U.S.C. 13344, CWA 404)

[49 FR 38948, Oct. 2, 1984. Redesignated at 53 FR 20776, June 6, 1988]

SUBCHAPTER I—SOLID WASTES

PART 240—GUIDELINES FOR THE THERMAL PROCESSING OF SOLID WASTES

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APPENDIX—RECOMMENDED BIBLIOGRAPHY

AUTHORITY: Sec. 209(a), Solid Waste Disposal Act of 1965 (Pub. L. 89-272); as amended by the Resource Recovery Act of 1970 (Pub. L. 91-512).

SOURCE: 39 FR 29329, Aug. 14, 1974, unless otherwise noted.

Subpart A—General Provisions

§ 240.100 Scope.

(a) The prescribed guidelines are applicable to thermal processing facilities designed to process or which are processing 50 tons or more per day of municipal-type solid wastes. The application of this capacity criterion will be interpreted to mean any facility designed to process or actually processing 50/24 tons or more per hour. However, the guidelines do not apply to hazardous, agricultural, and mining wastes because of the lack of sufficient information upon which to base recommended procedures.

(b) The requirement sections contained herein delineate minimum levels of performance required of any solid waste thermal processing operation. The recommended procedures sections are presented to suggest preferred methods by which the objectives of the requirements can be realized. The recommended procedures are based on the practice of incineration at large facilities (50 tons per day or more) processing municipal solid waste. If techniques other than the recommended procedures are used or wastes other than municipal wastes are processed, it is the obligation of the facility's owner and operator to demonstrate to the responsible agency in advance by means of engineering calculations, pilot plant data, etc., that the techniques employed will satisfy the requirements.

(c) Thermal processing residue must be disposed of in an environmentally acceptable manner. Where a land disposal facility is employed, it must be in accordance with the Environmental Protection Agency's Guidelines for the Land Disposal of Solid Wastes for both residues from the thermal processing operation and those non-hazardous wastes which cannot be thermally processed for reasons of health, safety, or technological limitation.

(d) Pursuant to section 211 of the Solid Waste Disposal Act, as amended, these guidelines are mandatory for Federal agencies. In addition, they are recommended to State, interstate, regional, and local government agencies for use in their activities.

(e) The guidelines are intended to apply equally to all solid waste generated by Federal agencies, regardless of whether processed or disposed of on or off Federal property; and solid waste generated by non-Federal entities, but processed or disposed of on Federal property. However, in the case of many Federal facilities such as Post Offices, military recruiting stations, and other offices, local community solid waste processing and disposal facilities are utilized, and processing and disposal is not within the management control of the Federal agency. Thus, implementation of the guidelines can be expected only in those situations where the Federal agency is able to exercise direct management control over the processing and disposal operations. However, every effort must be made by the responsible agency, where offsite facilities are utilized, to attain processing and disposal facilities that are in compliance with the guidelines. Where non-Federal generated solid waste is processed and disposed of on Federal land and/or facilities, those facilities and/or sites must be in compliance with these guidelines. Determination of compliance to meet the requirements of the guidelines rests with the responsible agency, and they have the authority to determine how such compliance may occur.

§ 240.101 Definitions.

As used in these guidelines:

(a) "Air": "Overfire air" means air, under control as to quantity and direction, introduced above or beyond a fuel bed by induced or forced draft. "Underfire air" means any forced or induced air, under control as to quantity and direction, that is supplied from beneath and which passes through the solid wastes fuel bed.

(b) "Bottom ash" means the solid material that remains on a hearth or falls off the grate after thermal processing is complete.

(c) "Combustibles" means materials that can be ignited at a specific temperature in the presence of air to release heat energy.

(d) "Design capacity" means the weight of solid waste of a specified gross calorific value that a thermal processing facility is designed to process in 24 hours of continuous operation; usually expressed in tons per day.

(e) "Discharge" means water-borne pollutants released to a receiving stream directly or indirectly or to a sewerage system.

(f) "Emission" means gas-borne pollutants released to the atmosphere.

(g) "Facility" means all thermal processing equipment, buildings, and grounds at a specific site.

(h) "Fly ash" means suspended particles, charred paper, dust, soot, and other partially oxidized matter carried in the products of combustion.

(i) "Free moisture" means liquid that will drain freely by gravity from solid materials.

(j) "Furnace" means the chambers of the combustion train where drying, ignition, and combustion of waste material and evolved gases occur.

(k) "Grate siftings" means the materials that fall from the solid waste fuel bed through the grate openings.

(l) "Gross calorific value" means heat liberated when waste is burned completely and the products of combustion are cooled to the initial temperature of the waste. Usually expressed in British thermal units per pound.

(m) "Hazardous waste" means any waste or combination of wastes which pose a substantial present or potential hazard to human health or living organisms because such wastes are nondegradable or persistent in nature or because they can be biologically magnified, or because they can be lethal, or because they may otherwise cause or tend to cause detrimental cumulative effects.

(n) "Incineration" means the controlled process which combustible solid, liquid, or gaseous wastes are burned and changed into noncombustible gases.

(o) "Incinerator" means a facility consisting of one or more furnaces in which wastes are burned.

(p) "Infectious waste" means: (1) Equipment, instruments, utensils, and fomites of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (2) laboratory wastes such as pathological specimens (e.g., all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites (any substance that may harbor or transmit pathogenic organisms) attendant thereto; (3) surgical operating room pathologic specimens and disposable fomites attendant thereto and similar disposable materials from outpatient areas and emergency rooms.

(q) "Municipal solid wastes" means normally, residential and commercial solid wastes generated within a community.

(r) "Open burning" means burning of solid wastes in the open, such as in an open dump.

(s) "Open dump" means a land disposal site at which solid wastes are disposed of in a manner that does not protect the environment, are susceptible to open burning, and are exposed to the elements, vectors, and scavengers.

(t) "Plans" means reports and drawings, including a narrative operating description, prepared to describe the facility and its proposed operation.

(u) "Residue" means all the solids that remain after completion of thermal processing, including bottom ash, fly ash, and grate siftings.

(v) "Responsible agency" means the organizational element that has the legal duty to ensure that owners, operators, or users of facilities comply with these guidelines.

(w) "Sanitary landfill" means a land disposal site employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume, and applying and compacting cover material at the end of each operating day.

(x) "Sludge" means the accumulated semiliquid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins. It does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

(y) "Solid wastes" means garbage, refuse, sludges, and other discarded solid materials resulting from industrial and commercial operations and from community activities. It does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

(z) "Special wastes" means nonhazardous solid wastes requiring handling other than that normally used for municipal solid waste.

(aa) "Thermal processing" means processing of waste material by means of heat.

(bb) "Vector" means a carrier, usually an arthropod, that is capable of transmitting a pathogen from one organism to another.

Subpart B—Requirements and Recommended Procedures

§ 240.200 Solid wastes accepted.

§ 240.200–1 Requirement.

In consultation with the responsible agencies, the owner/operator shall determine what wastes shall be accepted and shall identify any special handling required. In general, only wastes for which the facility has been specifically designed shall be accepted; however, other wastes may be accepted if it has been demonstrated to the responsible agency that they can be satisfactorily processed within the design capability of the facility or after appropriate facility modifications.

§ 240.200–2 Recommended procedures: Design.

(a) In addition to the residential and commercial wastes normally processed at municipal-scale incinerators, certain special wastes might be considered for processing. These include: Certain bulky wastes (e.g., combustible demolition and construction debris, tree stumps, large timbers, furniture, and major appliances), digested and dewatered sludges from waste water treatment facilities, raw sewage sludges, and septic tank pumpings.

(b) If the facility is designed to handle special wastes, special areas should be provided where appropriate for storage while they await processing.

§ 240.200–3 Recommended procedures: Operations.

(a) Storage areas for special wastes should be clearly marked.

(b) Facility personnel should be thoroughly trained in any unusual handling required by acceptance of Special Wastes.

§ 240.201 Solid wastes excluded.

§ 240.201–1 Requirement.

Using information provided to them by the waste generator/owner, the responsible agency and the facility owner/operator shall jointly determine specific wastes to be excluded and shall identify them in the plans. The generator/owner of excluded wastes shall consult with the responsible agency in determining an alternative method of disposal for excluded wastes. The criteria used in considering whether a waste is unacceptable shall include the facility's capabilities, alternative methods available, the chemical and biological characteristics of the waste, environmental and health effects, and the safety of personnel. Disposal of pesticides and pesticide containers shall be consistent with the Federal Environmental Pesticides Control Act of 1972 (Pub. L. 92-516) and recommended procedures promulgated thereunder.

§ 240.201–2 Recommended procedures: Design.

(a) Provision for storing, handling, and removing hazardous or excluded wastes inadvertently left at the facility should be considered in design.

(b) Examples of wastes which should be considered for exclusion from the facility include: Hazardous wastes, very large carcasses, automobile bodies, dewatered sludges from water treatment plants, and industrial process wastes.

§ 240.201–3 Recommended procedures: Operations.

(a) Regular users of the facility should be given a list of excluded materials. The list should also be displayed prominently at the facility entrance. If a regular user persists in making unacceptable deliveries, he should be barred from the installation and reported to the responsible agency.

(b) The operating plan should specify the procedures and precautions to be taken if unacceptable wastes are delivered to the facility or are improperly left there. Operating personnel should be thoroughly trained in such procedures.

§ 240.202 Site selection.

§ 240.202-1 Requirement.

Site selection and utilization shall be consistent with public health and welfare, and air and water quality standards and adaptable to appropriate land-use plans.

§ 240.202-2 Recommended procedures: Design.

(a) Whenever possible, thermal processing facilities should be located in areas zoned for industrial use and having adequate utilities to serve the facility.

(b) The site should be accessible by permanent roads leading from the public road system.

(c) Environmental factors, climatological conditions, and socioeconomic factors should be given full consideration as selection criteria.

§ 240.202-3 Recommended procedures: Operations.

Not applicable.

§ 240.203 General design.

§ 240.203-1 Requirement.

A plan for the design of new facilities or modifications to existing facilities shall be prepared or approved by a professional engineer. A list of major considerations and the rationale for the decision on each consideration shall be approved by the responsible agency prior to authorization for construction. This information shall remain available for review.

§ 240.203-2 Recommended procedures: Design.

(a) The types, amounts (by weight and volume), and characteristics of all solid wastes expected to be processed should be determined by survey and analysis. The gross calorific value of the solid wastes to be processed should be determined to serve as a basis for design.

(b) Resource recovery in the form of heat utilization or direct recovery of materials should be considered in the design.

(c) The facility should be designed to be compatible with the surrounding area, easy to maintain, and consistent with the land use of the area.

(d) Employee convenience facilities and plant maintenance facilities should be provided. Adequate lighting should be provided throughout the facility.

(e) The corrosive and erosive action of once-through and recirculated process waters should be controlled either by treating them or by using materials capable of withstanding the adverse effects of the waters.

(f) Facility design capacity should consider such items as waste quantity and characteristics, variations in waste generation, equipment downtime, and availability of alternate storage, processing, or disposal capability.

(g) Facility systems and subsystems should be designed to assure standby capability in the event of breakdown. Provision for standby water and power should also be considered.

(h) Instrumentation should be provided to determine such factors as: The weight of incoming and outgoing materials (the same scale system may be used for both); total combustion airflow rates; underfire and overfire airflows and the quantitative distribution of each; selected temperatures and pressures in the furnace, along gas passages, in the particulate collection device, and in the stack; electrical power and water consumption of critical units; and rate of operation. The smoke density, the concentration of carbon monoxide, or the concentration of hydrocarbons in the stack gases should be monitored. Measurement of the pH should be considered for effluent waters. Continuously recording instrumentation should be used as much as possible.

(i) Audible signals should be provided to alert operating personnel of critical operating unit malfunctions.

(j) Sampling capability should be designed into the facility so that each process stream can be sampled, and the utilities required to do so should be close at hand. The sampling sites should be so designed that personnel can sample safely without interfering with normal plant operations.

(k) A laboratory should be included in the design, or provision should be made for laboratory analyses to be performed by an outside source acceptable to the responsible agency.

§ 240.203-3 Recommended procedures: Operations.

Not applicable.

§ 240.204 Water quality.

§ 240.204-1 Requirement.

All waters discharged from the facility shall be sufficiently treated to meet the most stringent of applicable water quality standards, established in accordance with or effective under the provisions of the Federal Water Pollution Control Act, as amended.

§ 240.204-2 Recommended procedures: Design.

(a) Effluent waters should not be discharged indiscriminately. Consideration should be given to onsite treatment of process and waste waters before discharge.

(b) Recirculation of process waters should be considered.

§ 240.204-3 Recommended procedures: Operations.

(a) When monitoring instrumentation indicates excessive discharge contamination, appropriate adjustments should be made to lower the concentrations to acceptable levels.

(b) In the event of an accidental spill, the local regulatory agency should be notified immediately.

§ 240.205 Air quality.

§ 240.205-1 Requirement.

Emissions shall not exceed applicable existing emission standards established by the U.S. Environmental Protection Agency (as published in Parts 52, 60, 61 and 76[1] of this chapter) under the authority of the Clean Air Act, as amended, or State or local emission standards effective under that Act, if the latter are more stringent.

§ 240.205-2 Recommended procedures: Design.

(a) These requirements should be met by using appropriate air pollution control technology.

(b) All emissions, including dust from vents, should be controlled.

§ 240.205-3 Recommended procedures: Operations.

When monitoring instrumentation indicates excessive emissions, appropriate adjustments should be made to lower the emission to acceptable levels.

§ 240.206 Vectors.

§ 240.206-1 Requirement.

Conditions shall be maintained that are unfavorable for the harboring, feeding, and breeding of vectors.

§ 240.206-2 Recommended procedures: Design.

Thermal processing facilities should be designed for ease of cleaning. Areas favorable for breeding of vectors should be avoided.

§ 240.206-3 Recommended procedures: Operations.

(a) A housekeeping schedule should be established and maintained. As a minimum the schedule should provide for cleaning the tipping and residue areas as spillages occur, emptying the solid waste storage area at least weekly, and routinely cleaning the remainder of the facility.

(b) Solid waste and residue should not be allowed to accumulate at the facility for more than one week.

§ 240.207 Aesthetics.

§ 240.207-1 Requirement.

The incinerator facility shall be designed and operated at all times in an aesthetically acceptable manner.

§ 240.207-2 Recommended procedures: Design.

The facility should be designed so that it is physically attractive. The tipping, residue discharge, and waste salvage areas should be screened from public view, and the grounds should be landscaped.

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[1] EDITORIAL NOTE: Part 76 was removed at 40 FR 13216, Mar. 25, 1975.

§ 240.207-3 Recommended procedures: Operations.

(a) A routine housekeeping and litter removal schedule should be established and implemented so that the facility regularly presents a neat and clean appearance.

(b) Solid wastes that cannot be processed by the facility should be removed from the facility at least weekly. Open burning or open dumping of this material should be prohibited.

§ 240.208 Residue.

§ 240.208-1 Requirement.

Residue and other solid waste products resulting from a thermal process shall be disposed of in an environmentally acceptable manner. Where land disposal is employed, practices must be in conformance with the U.S. Environmental Protection Agency's Guidelines for the Land Disposal of Solid Wastes. Unwanted residue materials remaining after the recovery operation shall be disposed of in a manner which protects the environment. Where land disposal is employed, practices must be in conformance with the U.S. Environmental Protection Agency's Guidelines for the Land Disposal of Solid Wastes.

§ 240.208-2 Recommended procedures: Design.

Thermal processing facilities should be so designed as to allow for removal from the site of residue or other solids in a manner that protects the environment.

§ 240.208-3 Recommended procedures: Operations.

(a) The furnace operator should visually observe the quality of the bottom ash at least twice per shift and record in the operating log the estimated percentage of unburned combustibles.

(b) If residue or fly ash is collected in a wet condition, it should be drained of free moisture. Transportation of residue and fly ash should be by means that prevent the loads from shifting, falling, leaking, or blowing from the container.

§ 240.209 Safety.

§ 240.209-1 Requirement.

Incinerators shall be designed, operated, and maintained in a manner to protect the health and safety of personnel associated with the operation of the facility. Pertinent provisions of the Occupational Safety and Health Act of 1970 (Pub. L. 91-596) and regulations promulgated thereunder shall apply.

§ 240.209-2 Recommended procedures: Design.

(a) Attention should be given to the safety of operators and vehicles through the provision of safety devices.

(b) Fire control equipment should be provided.

(c) Methods and/or equipment for removal of an injured person from the storage pit should be available.

§ 240.209-3 Recommended procedures: Operations.

(a) Detailed procedures should be developed for operation during such emergency situations as power failure, air or water supply failure, equipment breakdowns, and fire. These procedures should be posted in prominent locations, implemented by the staff as required, and upgraded and revised periodically.

(b) Approved respirators or self-contained breathing apparatus should be available at convenient locations. Their use should be reviewed periodically with facility personnel. Information on this type equipment can be obtained from the Appalachian Laboratory for Occupational Respiratory Disease, National Institute for Occupational Safety and Health, Morgantown, W. Va.

(c) Training in first aid practices and emergency procedures should be given all personnel.

(d) Personal safety devices such as hard hats, gloves, safety glasses, and footwear should be provided for facility employees.

(e) If a regular user or employee persistently poses a safety hazard he should be barred from the facility and reported to the responsible agency.

§ 240.210 General operations.

§ 240.210-1 Requirement.

The thermal processing facility shall be operated and maintained in a manner that assures it will meet the design requirements. An operations manual describing the various tasks to be performed, operating procedures, and safety precautions for various areas of the facility shall be developed and shall be readily available for reference by plant personnel.

§ 240.210-2 Recommended procedures: Design.

Not applicable.

§ 240.210-3 Recommended procedures: Operations.

(a) The facility supervisor should be experienced in the operation of the type of facility designed or, in the case of an innovated design, be adequately trained by responsible personnel in the operation of the facility.

(b) Alternate and standby disposal and operating procedures should be established for implementation during emergencies, air pollution episodes, and shutdown periods.

(c) Upon completion of facility construction, provision should be made for instruction of the staff in proper operation and maintenance procedures.

(d) A routine maintenance schedule should be established and followed.

(e) As-built engineering drawings of the facility should be provided at the conclusion of construction of the facility. These should be updated to show modifications by the owner as changes are made and should be readily available. A schematic showing the relationships of the various subsystems should also be available.

(f) Key operational procedures should be prominently posted.

(g) Equipment manuals, catalogs, spare parts lists, and spare parts should be readily available at the facility.

(h) Training opportunities for facil ty operating personnel should be pro vided.

§ 240.211 Records.

§ 240.211-1 Requirement.

The owner/operator of the therma processing facility shall provid records and monitoring data as re quired by the responsible agency.

§ 240.211-2 Recommended procedure Design.

Continuously recording instrumenta tion should be used as much as possi ble.

§ 240.211-3 Recommended procedures: Op erations.

(a) Extensive monitoring and record keeping should be practiced durin the first 12 to 18 months of operatio of a new or renovated facility, durin periods of high air pollution, an during periods of upset conditions a the facility.

(b) During other periods of mor normal operation of the facility, les extensive monitoring and record keeping may be practiced if approved b the responsible agency.

(c) Operating records should be kep in a daily log and should include as minimum:

(1) The total weight and volum (truck capacities may be used fo volume determination) of solid wast received during each shift, includin the number of loads received, the ownership or specific identity of deliver vehicles, the source and nature of th solid wastes accepted.

(2) Furnace and combustion chamber temperatures recorded at leas every 60 minutes and as changes ar made, including explanations for prolonged, abnormally high and low temperatures.

(3) Rate of operation, such as grat speed.

(4) Overfire and underfire air volumes and pressure and distribution recorded at least every 60 minutes and as changes are made.

(5) Weights of bottom ash, grate siftings, and fly ash, individually or com-

bined, recorded at intervals appropriate to normal facility operation.

(6) Estimated percentages of unburned material in the bottom ash.

(7) Water used on each shift for bottom ash quenching and scrubber operation. Representative samples of process waters should be collected and analyzed as recommended by the responsible agency.

(8) Power produced and utilized each shift. If steam is produced, quality, production totals and consumption rates should be recorded.

(9) Auxiliary fuel used each shift.

(10) Gross calorific value of daily representative samples of bottom ash, grate siftings, and fly ash. (Sampling time should be varied so that all shifts are monitored on a weekly basis.)

(11) Emission measurements and laboratory analyses required by the responsible agency.

(12) Complete records of monitoring instruments.

(13) Problems encountered and methods of solution.

(d) An annual report should be prepared which includes at least the following information:

(1) Minimum, average, and maximum daily volume and weight of waste received and processed, summarized on a monthly basis.

(2) A summary of the laboratory analyses including at least monthly averages.

(3) Number and qualifications of personnel in each job category; total manhours per week; number of State certified or licensed personnel; staffing deficiencies; and serious injuries, their cause and preventive measures instituted.

(4) An identification and brief discussion of major operational problems and solutions.

(5) Adequacy of operation and performance with regard to environmental requirements, the general level of housekeeping and maintenance, testing and reporting proficiency, and recommendations for corrective actions.

(6) A copy of all significant correspondence, reports, inspection reports, and any other communications from enforcement agencies.

(e) Methodology for evaluating the facility's performance should be developed. Evaluation procedures recommended by the U.S. Environmental Protection Agency should be used whenever possible (see bibliography).

APPENDIX—RECOMMENDED BIBLIOGRAPHY

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3. DeMarco, J., D. J. Keller, J. Leckman, and J. L. Newton. Municipal-scale incinerator design and operation. Public Health Service Publication No. 2012. Washington, U.S. Government Printing Office, 1973. 98 p.

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5. Control techniques for particulate air pollutants. Publication AP-51. U.S. Department of Health, Education, and Welfare, National Air Pollution Control Administration, 1969.

6. Zausner, E. R. An accounting system for incinerator operations. Public Health Service Publication No. 2032. Washington, U.S. Government Printing Office, 1970. 17 p.

7. Achinger, W. C., and J. J. Giar, Testing manual for solid waste incinerators. [Cincinnati], U.S. Environmental Protection Agency, 1973. [372 p., loose-leaf.] [Open-file report, restricted distribution.]

8. Nader, J. S., W. Carter, and F. Jaye. Performance Specifications for Stationary Source Monitoring Systems. NTIS PB. 230 934/AS (1974).

PART 241—GUIDELINES FOR THE LAND DISPOSAL OF SOLID WASTES

Subpart A—General Provisions

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ations.
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ations.

APPENDIX—RECOMMENDED BIBLIOGRAPHY

AUTHORITY: Sec. 209(a) of the Solid Wa
Disposal Act of 1965 (Pub. L. 89-272)
amended by the Resource Recovery Act
1970 (Pub. L. 91-512).

SOURCE: 39 FR 29333, Aug. 14, 1974, unle
otherwise noted.

Subpart A—General Provisions

§ 241.100 Scope.

(a) The guidelines are generally a
plicable to the land disposal of
solid waste materials. However, t
guidelines do not apply to hazardou
agricultural, and mining wastes b
cause of the lack of sufficient inform
tion upon which to base recommend
procedures. Concerning the speci
practice of land disposal of milled sol
wastes, EPA guidance is contained in
position statement issued in Novemb
1972.

(b) The requirement sections co
tained herein delineate minimu
levels of performance required of a
solid waste land disposal site ope
ation. The recommended procedur
sections are presented to suggest pr
ferred methods by which the obje
tives of the requirements can be re
ized.[1] The recommended procedur
are based on the practice of sanita
landfilling municipal solid waste: No
mally, residential, and commerc
solid waste generted within a comm
nity. Sanitary landfilling is the mo
widely applied environmentally a
ceptable land disposal method. If tec
niques other than the recommend
procedures are used, or wastes oth

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[1] Further guidance may be found in t
EPA publication, "Sanitary Landfill Desi
and Operation," which served as a basis f
the development of these guidelines.

than municipal solid wastes are disposed, it is the obligation of the proposed facility's owner and operator to demonstrate to the responsible agency in advance by means of engineering calculations and data that the techniques employed will satisfy the requirements.

(c) Pursuant to section 211 of the Solid Waste Disposal Act, as amended, these guidelines are mandatory for Federal agencies. In addition, they are recommended to State, interstate, regional, and local government agencies for use in their activities.

(d) These guidelines are intended to provide for environmentally acceptable land disposal site operations. The guidelines do not establish new standards but set forth requirements and recommended procedures to ensure that the design, construction, and operation of both existing and future land disposal sites meet the health and environmental standards for the area in which they are located. The guidelines are intended to apply equally to all solid waste generated by Federal agencies, regardless of whether processed or disposed of on or off Federal property; and solid waste generated by non-Federal entities, but processed or disposed of on Federal property. However, in the case of many Federal facilities such as Post Offices, military recruiting stations, and other offices, local community solid waste processing and disposal facilities are utilized, and processing and disposal is not within the management control of the Federal agency. Thus, implementation of the guidelines can be expected only in those situations where the Federal agency is able to exercise direct management control over the processing and disposal operations. However, every effort must be made by the responsible agency, where offsite facilities are utilized, to attain processing and disposal facilities that are in compliance with the guidelines. Where non-Federal generated solid waste is processed and disposed of on Federal land and/or facilities, those facilities and/or sites must be in compliance with these guidelines. Determination of compliance to meet the requirements of the guidelines rests with the responsible agency, and they have the authority to determine how such compliance may occur.

[39 FR 29333, Aug. 14, 1974; 40 FR 5159, Feb. 4, 1975]

§ 241.101 Definitions.

As used in these guidelines:

(a) "Cell" means compacted solid wastes that are enclosed by natural soil or cover material in a land disposal site.

(b) "Cover material" means soil or other suitable material that is used to cover compacted solid wastes in a land disposal site.

(c) "Daily cover" means cover material that is spread and compacted on the top and side slopes of compacted solid waste at least at the end of each operating day in order to control vectors, fire, moisture, and erosion and to assure an aesthetic appearance.

(d) "Final cover" means cover material that serves the same functions as daily cover but, in addition, may be permanently exposed on the surface.

(e) "Free moisture" means liquid that will drain freely by gravity from solid materials.

(f) "Groundwater" means water present in the saturated zone of an aquifer.

(g) "Hazardous wastes" means any waste or combination of wastes which pose a substantial present or potential hazard to human health or living organisms because such wastes are nondegradable or persistent in nature or because they can be biologically magnified, or because they can be lethal, or because they may otherwise cause or tend to cause detrimental cumulative effects.

(h) "Infectious waste" means: (1) Equipment, instruments, utensils, and fomites of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (2) laboratory wastes, such as pathological specimens (e.g. all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites (any substance that may harbor or transmit pathogenic organisms) attendant thereto; (3) surgical operating room pathologic specimens and disposable fomites attendant thereto and similar disposable materials from outpatient areas and emergency rooms.

(i) "Intermediate cover" means cover material that serves the same functions as daily cover, but must resist erosion for a longer period of time, because it is applied on areas where additional cells are not to be constructed for extended periods of time.

(j) "Leachate" means liquid that has percolated through solid waste and has extracted dissolved or suspended materials from it.

(k) "Municipal solid wastes" means normally, residential, and commercial solid waste generated within a community.

(l) "Open burning" means burning of solid wastes in the open, such as in an open dump.

(m) "Open dump" means a land disposal site at which solid wastes are disposed of in a manner that does not protect the environment, is susceptible to open burning, and is exposed to the elements, vectors, and scavengers.

(n) "Plans" means reports and drawings, including a narrative operating description, prepared to describe the land disposal site and its proposed operation.

(o) "Residue" means all the solids that remain after completion of thermal processing, including bottom ash, fly ash, and grate siftings.

(p) "Responsible agency" means the organizational element that has the legal duty to ensure that owners, operators or users of land disposal sites comply with these guidelines.

(q) "Runoff" means the portion of precipitation that drains from an area as surface flow.

(r) "Salvaging" means the controlled removal of waste materials for utilization.

(s) "Sanitary landfill" means a land disposal site employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume, and applying and compacting cover material at the end of each operating day.

(t) "Scavenging" means uncontrolled removal of solid waste materials.

(u) "Sludge" means the accumulated semiliquid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins. It does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

(v) "Solid wastes" means garbage, refuse, sludges, and other discarded solid materials resulting from industrial and commercial operations and from community activities. It does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

(w) "Vector" means a carrier, usually an arthropod, that is capable of transmitting a pathogen from one organism to another.

(x) "Water table" means the upper water level of a body of groundwater.

(y) "Working face" means that portion of the land disposal site where solid wastes are discharged and are spread and compacted prior to the placement of cover material.

Subpart B—Requirements and Recommended Procedures

§ 241.200 Solid wastes accepted.

§ 241.200–1 Requirement.

In consultation with the responsible agencies the owner/operator shall determine what wastes shall be accepted and shall identify any special handling required. In general, only wastes for which the facility has been specifically designed shall be accepted; however, other wastes may be accepted if it has been demonstrated to the responsible agency that they can be satisfactorily disposed with the design capability of the facility or after appropriate facility modifications.

§ 241.200-2 Recommended procedures: Design.

The plans should specify the procedures to be employed for wastes requiring special handling.

§ 241.200-3 Recommended procedures: Operations.

(a) Routine sanitary landfill techniques of spreading and compacting solid wastes and placing cover material at the end of each operating day should be used to dispose of municipal solid wastes.

(b) Certain bulky wastes, such as automobile bodies, furniture, and appliances may be salvaged in a controlled manner at a point other than the working face. Otherwise, they should be crushed on solid ground and then pushed onto the working face near the bottom of the cell. Other bulky items, such as demolition and construction debris, tree stumps, and large timbers, should be pushed onto the working face near the bottom of the cell.

(c) Procedures for disposing of dead animals have been established by law in most States, and the operation should comply accordingly. In most cases, small carcasses should be placed on the working face with other municipal solid wastes and covered immediately. In the absence of applicable State laws, large carcasses should be placed in a pit and provided with a cover of compacted soil or other suitable material to encourage runoff of precipitation.

(d) Water treatment plant sludges containing no free moisture and digested or heat treated waste water treatment plant sludges containing no free moisture should be placed on the working face along with municipal solid wastes and covered with soil or municipal solid wastes. The quantities accepted should be determined by operational problems encountered at the working face.

(e) Incinerator and air pollution control residues containing no free moisture should be incorporated into the working face and covered at such intervals as necessary to prevent them from becoming airborne.

§ 241.201 Solid wastes excluded.

§ 241.201-1 Requirement.

Using information supplied by the waste generator/owner, the responsible agency and the disposal site owner/operator shall jointly determine specific wastes to be excluded and shall identify them in the plans. The generator/owner of excluded wastes shall consult with the responsible agency in determining an alternative method of disposal for excluded wastes. The criteria used in considering whether a waste is unacceptable shall include the hydrogeology of the site, the chemical and biological characteristics of the waste, alternative methods available, environmental and health effects, and the safety of personnel. Disposal of pesticides and pesticide containers shall be consistent with the Federal Environmental Pesticides Control Act of 1972 (Pub. L. 92-516) and recommended procedures and regulations promulgated thereunder.

§ 241.201-2 Recommended procedures: Design.

Under certain circumstances it may be necessary to accept special wastes at land disposal sites. The following special wastes require specific approval of the responsible agency for acceptance at the site: Hazardous wastes, infectious institutional wastes, bulk liquids and semi-liquids, sludges containing free moisture, highly flammable or volatile substances, raw animal manure, septic tank pumpings, raw sewage sludge, and certain industrial process wastes. Where the use of the disposal site for such wastes is planned, a special assessment is required of the following items: The site characteristics, nature and quantities of the waste, and special design and operations precautions to be implemented to insure environmentally safe disposal.

§ 241.201-3 Recommended procedures: Operations.

Regular users of the land disposal site should be provided with a list of the materials to be excluded. The list should also be displayed prominently at the site entrance. If a regular user persists in making unacceptable deliveries, he should be barred from the site and reported to the responsible agency.

§ 241.202 Site selection.

§ 241.202-1 Requirement.

Site selection and utilization shall be consistent with public health and welfare, and air and water quality standards and adaptable to appropriate land-use plan.

§ 241.202-2 Recommended procedures: Design.

(a) The hydrogeology of the site should be evaluated in order to design site development in a manner to protect or minimize the impact on groundwater resources. Unacceptable hydrogeologic conditions may be altered to render the site acceptable, but all alterations should be detailed in the plans. Precipitation, evapotranspiration, and other climatological conditions should be considered in site selection and design.

(b) Characteristics of on-site soil should be evaluated with respect to their effects on site operations, such as vehicle maneuverability and use as cover material.

(c) Environmental factors, climatological conditions, and socioeconomic factors should be given full consideration as selection criteria.

(d) The site should be accessible to vehicles which the site is designed to serve by all-weather roads leading from the public road system; temporary roads should be provided as needed to deliver wastes to the working face.

(e) The site should not be located in an area where the attraction of birds would pose a hazard to low-flying aircraft.

§ 241.202-3 Recommended procedures: Operations.

Not applicable.

§ 241.203 Design.

§ 241.203-1 Requirement.

Plans for the design, construction, and operation of new sites or modifications to existing sites shall be prepared or approved by a professional engineer. The plans shall be submitted to the responsible agency for review and, if warranted, approval.

§ 241.203-2 Recommended procedures: Design.

(a) The types and quantities of all solid wastes expected to be disposed of at the facility should be determined by survey and analysis to form a basis for design.

(b) Site development plans should be prepared or approved by a professional engineer and should include: The various design factors addressed elsewhere in the guidelines, as well as:

(1) Initial and final topographies at contour intervals of 5 feet or less.

(2) Land use and zoning within one-quarter mile of the site including location of all residents, buildings, wells, water courses, arroyos, rock outcroppings, roads, and soil or rock borings. All airports within the vicinity of the site should be identified to aid in assessing the potential hazard of birds to aircraft.

(3) Location of all utilities within 500 feet of the site.

(4) Employee convenience and equipment maintenance facilities.

(5) Narrative descriptions, with associated drawings, indicating site development and operation procedures.

(c) Plans should describe the projected use of the completed land disposal site. In addition to maintenance programs and provisions, where necessary, for monitoring and controlling decomposition gases and leachate, the plans should address the following ultimate use criteria:

(1) *Cultivated area.* The major concern if the completed site is to be cultivated is that the integrity of the final cover not be disturbed by agricultural cultivation activities. In this regard, a sufficient depth of cover material to allow cultivation and to support vegetation should be applied in addition to that recommended for final cover.

(2) *Structures.* It is not recommended practice to construct major structures on a completed land disposal site. If major structures are to be built near a completed land disposal site, a professional engineer should approve

their design and construction including provision for protection against potential hazards of solid waste decomposition gases.

§ 241.203-3 Recommended procedures: Operations.

Not applicable.

§ 241.204 Water quality.

§ 241.204-1 Requirement.

The location, design, construction, and operation of the land disposal site shall conform to the most stringent of applicable water quality standards established in accordance with or effective under the provisions of the Federal Water Pollution Control Act, as amended. In the absence of such standards, the land disposal site shall be located, designed, constructed and operated in such a manner as to provide adequate protection to ground and surface waters used as drinking water supplies.

§ 241.204-2 Recommended procedures: Design.

(a) Plans should include:

(1) Current and projected use of water resources in the potential zone of influence of the land disposal site.

(2) Groundwater elevation and movement and proposed separation between the lowest point of the lowest cell and the predicted maximum water table elevation.

(3) Potential interrelationship of the land disposal site, local aquifers, and surface waters based on historical records or other sources of information.

(4) Background and initial quality of water resources in the potential zone of influence of the land disposal site.

(5) Proposed location of observation wells, sampling stations, and testing program planned, when appropriate.

(6) Description of soil and other geologic material to a depth adequate to allow evaluation of the water quality protection provided by the soil and other geologic material.

(7) Provision for surface water runoff control to minimize infiltration and erosion of cover material.

(8) Potential of leachate generation and proposed control systems, where necessary, for the protection of ground and surface water resources.

(b) If a land disposal site is located in a flood plain, it should be protected against at least the 50-year design flood by impervious dikes and other appropriate means to prevent the floodwaters from contacting municipal solid waste.

§ 241.204-3 Recommended procedures: Operations.

(a) Surface water courses and runoff should be diverted from the land disposal site (especially from the working face) by means such as trenches, conduits, and proper grading. The land disposal site should be constructed and graded so as to promote rapid surface water runoff without excessive erosion. Regrading should be done as required during construction and after completion to avoid ponding of precipitation and to maintain cover material integrity.

(b) Siltation or retention basins or other approved methods of retarding runoff should be used where necessary to avoid stream siltation or flooding problems due to excessive runoff.

(c) Leachate collection and treatment systems should be used where necessary to protect ground and surface water resources.

(d) Municipal solid wastes and leachate therefrom should not be allowed to contact ground or surface water so as to impair the water's use.

§ 241.205 Air quality.

§ 241.205-1 Requirement.

The design, construction, and operation of the land disposal site shall conform to applicable ambient air quality standards and source control regulations established under the authority of the Clean Air Act, as amended, or State or local standards effective under that Act, if the latter are more stringent.

§ 241.205-2 Recommended procedures: Design.

Plans should include an effective dust control program.

§ 241.205-3 Recommended procedures: Operations.

(a) Open burning of municipal solid waste should be prohibited.

(b) Dust control measures should be initiated as necessary to protect the health and safety of facility personnel, nearby residents, and persons using the facility.

§ 241.206 Gas control.

§ 241.206-1 Requirement.

Decomposition gases generated within the land disposal site shall be controlled on site, as necessary, to avoid posing a hazard to occupants of adjacent property.

§ 241.206-2 Recommended procedures: Design.

Plans should assess the need for gas control and indicate the location and design of any vents, barriers, or other control measures to be provided.

§ 241.206-3 Recommended procedures: Operations.

(a) Decomposition gases should not be allowed to migrate laterally from the land disposal site to endanger occupants of adjacent properties. They should be vented to the atmosphere directly through the cover material, cutoff trenches, or ventilation systems in such a way that they do not accumulate in explosive or toxic concentrations, especially within structures. (Information on the limits of flammability of gases is available in such references as the "Handbook of Chemistry and Physics," 54th ed. CRC Press, Inc., Cleveland, 1973.)

(b) Decomposition gases should not be allowed to concentrate in a manner that will pose an explosion or toxicity hazard.

§ 241.207 Vectors.

§ 241.207-1 Requirement.

Conditions shall be maintained that are unfavorable for the harboring, feeding, and breeding of vectors.

§ 241.207-2 Recommended procedures: Design.

Plans should include contingency programs for vector control, and the operator should be prepared at all times to implement those procedures.

§ 241.207-3 Recommended procedures: Operations.

Vector control contingency programs should be implemented when necessary to prevent or rectify vector problems.

§ 241.208 Aesthetics.

§ 241.208-1 Requirement.

The land disposal site shall be designed and operated at all times in an aesthetically acceptable manner.

§ 241.208-2 Recommended procedures: Design.

Plans should include an effective litter control program.

§ 241.208-3 Recommended procedures: Operations.

(a) Portable litter fences or other devices should be used in the immediate vicinity of the working face and at other appropriate locations to control blowing litter. At the end of each operating day, or more often as required, litter should be removed from the fences and incorporated into the cell being used. Alternatively, the litter may be containerized for disposal on the next operating day.

(b) Wastes that are easily moved by wind should be covered, as necessary, to prevent their becoming airborne and scattered.

(c) On-site vegetation should be cleared only as necessary. Natural windbreaks, such as green belts, should be maintained where they will improve the appearance and operation of the land disposal site. Buffer strips should be planted and/or berms constructed as necessary to screen the working force from nearby residences or major roadways.

(d) Salvage operations should be conducted in such a manner as to not detract from the appearance of the land disposal site. Salvaged material should be removed from the land disposal site frequently enough to maintain aesthetic acceptability.

§ 241.209 Cover material.

§ 241.209-1 Requirement.

Cover material shall be applied as necessary to minimize fire hazards, infiltration of precipitation, odors, and blowing litter; control gas venting and vectors; discourage scavenging; and provide a pleasing appearance.

§ 241.209-2 Recommended procedures: Design.

Plans should specify:

(a) Cover material sources and soil classifications (Unified Soil Classification System or U.S. Department of Agriculture Classification System).

(b) Surface grades and side slopes needed to promote maximum runoff, without excessive erosion, to minimize infiltration.

(c) Procedures to promote vegetative growth as promptly as possible to combat erosion and improve appearance of idle and completed areas.

(d) Procedures to maintain cover material integrity, e.g., regarding and recovering.

§ 241.209-3 Recommended procedures: Operations.

(a) Daily cover should be applied regardless of weather; sources of cover material should, therefore, be accessible on all operating days. The thickness of the compacted daily cover should not be less than 6 inches.

(b) Intermediate cover should be applied on areas where additional cells are not to be constructed for extended periods of time; normally, 1 week to 1 year. The thickness of the compacted intermediate cover should not be less than 1 foot.

(c) Final cover should be applied on each area as it is completed or if the area is to remain idle for over 1 year. The thickness of the compacted final cover should not be less than 2 feet.

241.210 Compaction.

§ 241.210-1 Requirement.

In order to conserve land disposal site capacity, thereby preserving land resources, and to minimize moisture infiltration and settlement, municipal solid waste and cover material shall be compacted to the smallest practicable volume.

§ 241.210-2 Recommended procedures: Design.

(a) Arrangements should be made and indicated in the plans whereby substitute equipment will be available to provide uninterrupted service during routine equipment maintenance periods or equipment breakdowns.

(b) An equipment maintenance facility should be provided onsite, or appropriate contract arrangements should be made to receive such service.

(c) Equipment manuals, catalogs, and spare parts lists should be compiled and readily available onsite.

§ 241.210-3 Recommended procedures: Operations.

(a) Municipal solid waste handling equipment should on any operating day be capable of performing the following functions:

(1) Spread the solid waste accepted in layers no more than 2 feet thick while confining it to the smallest practicable area;

(2) Compact the spread solid wastes to the smallest practicable volume (several such compacted layers will form a cell); and

(3) Place, spread, and compact the cover material over the cell at least by the end of each day's operation.

(b) A preventive maintenance program should be employed to maintain equipment in operating order.

(c) An operating manual describing the various tasks that must be performed during a typical shift should be available to employees for reference.

§ 241.211 Safety.

§ 241.211-1 Requirement.

The land disposal site shall be designed, constructed, and operated in such a manner as to protect the health and safety of personnel associated with the operation. Pertinent provisions of the Occupational Safety and Health Act of 1970 (Pub. L. 91-596) and regulation promulgated thereunder shall apply.

§ 241.211-2 Recommended procedures: Design.

A manual describing safety precautions and procedures to be employed should be developed.

§ 241.211-3 Recommended procedures: Operations.

(a) A safety manual should be available for use by employees, and they should be instructed in application of its procedures.

(b) Personal safety devices such as hardhats, gloves, safety glasses, and footwear should be provided to facility employees.

(c) Safety devices, including but not limited to such items as rollover protective structures, seatbelts, audible reverse warning devices, and fire extinguishers should be provided on all equipment used to spread and compact solid wastes or cover material at the facility.

(d) Provisions should be made to extinguish any fires in wastes being delivered to the site or which occur at the working face or within equipment or personnel facilities.

(e) Communications equipment should be available onsite for emergency situations.

(f) Scavenging should be prohibited at all times to avoid injury and to prevent interference with site operations.

(g) Access to the site should be controlled and should be by established roadways only. The site should be accessible only when operating personnel are on duty. Large containers may be placed at the site entrance so that users can conveniently deposit waste after hours. The containers and the areas around them should be maintained in a sanitary and litter-free condition.

(h) Traffic signs or markers should be provided to promote an orderly traffic pattern to and from the discharge area, maintain efficient operating conditions, and, if necessary, restrict access to hazardous areas. Drivers of manually discharging vehicles should not hinder operation of mechanically discharging vehicles. Vehicles should not be left unattended at the working face or along traffic routes. If a regular user persistently poses a safety hazard, he should be barred from the site and reported to the responsible agency.

§ 241.212 Records.

§ 241.212-1 Requirement.

The owner/operator of the land disposal site shall maintain records and monitoring data to be provided, as required, to the responsible agency.

§ 241.212-2 Recommended procedures: Design.

Where appropriate, plans should prescribe methods to be used in maintaining records and monitoring the environmental impact of the land disposal site. Information on recording and monitoring requirements should be obtained from the responsible agency.

§ 241.212-3 Recommended procedures: Operations.

(a) Records should be maintained covering at least the following:

(1) Major operational problems, complaints, or difficulties.

(2) Qualitative and quantitative evaluation of the environmental impact of the land disposal site, with regard to the effectiveness of gas and leachate control, including results of: (i) Leachate sampling and analyses; (ii) gas sampling and analyses; (iii) ground and surface water quality sampling and analyses upstream and downstream of the site.

(3) Vector control efforts.

(4) Dust and litter control efforts.

(5) Quantitative measurements of the solid wastes handled. This should be accomplished through routine or periodic utilization of scales and topographic surveys of the site.

(6) Description of solid waste materials received, identified by source of materials.

(b) Upon completion of the site, a detailed description, including a plat, should be recorded with the area's land recording authority. The description should include general types and locations of wastes, depth of fill, and other information of interest to potential landowners.

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PART 243—GUIDELINES FOR THE STORAGE AND COLLECTION OF RESIDENTIAL, COMMERCIAL, AND INSTITUTIONAL SOLID WASTE

Subpart A—General Provisions

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APPENDIX—RECOMMENDED BIBLIOGRAPHY

AUTHORITY: Sec. 209(a) of the Solid Waste Disposal Act of 1965 (Pub. L. 89-272), as amended by the Resource Recovery Act of 1970 (Pub. L. 91-512).

SOURCE: 41 FR 6769, Feb. 13, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 243.100 Scope.

(a) These guidelines are promulgated in partial fulfillment of section 209(a) of the Solid Waste Disposal Act, as amended (Pub. L. 89-272).

(b) The guidelines apply to the collection of residential, commercial, and institutional solid wastes and street wastes. Explicitly excluded are mining, agricultural, and industrial solid wastes; hazardous wastes; sludges; construction and demolition wastes; and infectious wastes.

(c) The "Requirement" sections contained herein delineate minimum levels of performance required of solid waste collection operations. Under section 211 of the Solid Waste Disposal Act, as amended, and Executive Order 11752, the "Requirement" sections of these guidelines are mandatory for Federal agencies. In addition, they are recommended to State, interstate, regional, and local governments for use in their activities.

(d) The "Recommended procedures" sections are presented to suggest additional actions or preferred methods by which the objectives of the requirements can be realized. The "Recommended procedures" are not mandatory for Federal agencies.

(e) The guidelines apply equally to Federal agencies generating solid waste whether the solid waste is actually collected by a Federally operated or non-Federally operated collection system, except in the case of isolated Federal facilities such as post offices, military recruiting stations, and other offices where local community solid waste collection systems are utilized, which are not within the managerial control of the Federal agency.

(f) The guidelines shall be implemented in those situations where the Federal agency is able to exercise direct managerial control over the collection system through operation of the system or by contracting for collection service. Where non-Federal collection systems are utilized, service contracts should require conformance with the guidelines requirements unless service meeting such requirements is not reasonably available. It is left to the head of the responsible agency to decide how the requirements of the guidelines will be met.

(g) The Environmental Protection Agency will give technical assistance and other guidance to Federal agencies when requested to do so under section 3(D)1 of Executive Order 11752.

(h) Within 1 year after the final promulgation of these guidelines, Federal agencies shall decide what actions shall be taken to adopt the requirements of these guidelines and shall, within 60 days of this decision, submit to the Administrator a schedule of such actions.

(i) Federal agencies that decide not to adopt the requirements contained herein, for whatever reason, shall make available to the Administrator a report of the analysis and rationale used in making that decision. The Administrator shall publish notice of availability of this report in the FEDERAL REGISTER. EPA considers the following reasons to be valid for purposes of non-compliance: costs so high as to render compliance economically impracticable, and the technical inhibitions to compliance specifically described in the guidelines.

(1) The following points are to be covered in the report.

(i) A description of the proposed or on-going practices which will not be in compliance with these guidelines. This statement should identify all agency facilities which will be affected by noncompliance including a brief description of how such facilities will be affected.

(ii) A description of the alternative actions considered with emphasis on those alternatives which, if taken, would be in compliance with these guidelines.

(iii) The rationale for the action chosen by the agency including technical data and policy considerations used in arriving at this decision.

In covering these points, agencies should make every effort to present the information succinctly in a form easily understood, but in sufficient detail so that the Administrator and the public may understand the factors influencing the decision not to adopt the requirements of these guidelines.

(2) The report shall be submitted to the Administrator as soon as possible after a final agency decision has been made not to adopt the requirements of these guidelines, but in no case later than 60 days after the final decision. The Administrator will indicate to the agency his concurrence/nonconcurrence with the agency's decision, including his reasons.

(3) Implementation of actions not in compliance with these guidelines shall be deferred, where feasible, in order to give the Administrator time to receive,

analyze, and seek clarification of the required report.

(4) It is recommended that where the report on non-compliance concerns an action for which an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act, that the report be circulated simultaneously with the EIS, since much of the information to satisfy the requirements of the report will be useful in the preparation of the EIS.

§ 243.101 Definitions.

As used in these guidelines:

(a) "Alley collection" means the collection of solid waste from containers placed adjacent to or in an alley.

(b) "Agricultural solid waste" means the solid waste that is generated by the rearing of animals, and the producing and harvesting of crops or trees.

(c) "Bulky waste" means large items of solid waste such as household appliances, furniture, large auto parts, trees, branches, stumps, and other oversize wastes whose large size precludes or complicates their handling by normal solid wastes collection, processing, or disposal methods.

(d) "Carryout collection" means collection of solid waste from a storage area proximate to the dwelling unit(s) or establishment.

(e) "Collection" means the act of removing solid waste (or materials which have been separated for the purpose of recycling) from a central storage point.

(f) "Collection frequency" means the number of times collection is provided in a given period of time.

(g) "Commercial solid waste" means all types of solid wastes generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.

(h) "Compactor collection vehicle" means a vehicle with an enclosed body containing mechanical devices that convey solid waste into the main compartment of the body and compress it into a smaller volume of greater density.

(i) "Construction and demolition waste" means the waste building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings, and other structures.

(j) "Curb collection" means collection of solid waste placed adjacent to a street.

(k) "Federal facility" means any building, installation, structure, land, or public work owned by or leased to the Federal Government. Ships at sea, aircraft in the air, land forces on maneuvers, and other mobile facilities are not considered "Federal facilities" for the purpose of these guidelines. United States Government installations located on foreign soil or on land outside the jurisdiction of the United States Government are not considered "Federal facilities" for the purpose of these guidelines.

(l) "Food waste" means the organic residues generated by the handling, storage, sale, preparation, cooking, and serving of foods, commonly called garbage.

(m) "Generation" means the act or process of producing solid waste.

(n) "Hazardous waste" means a waste or combination of wastes of a solid, liquid, contained gaseous, or semisolid form which may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness, taking into account the toxicity of such waste, its persistence and degradability in nature, its potential for accumulation or concentration in tissue, and other factors that may otherwise cause or contribute to adverse acute or chronic effects on the health of persons or other organisms.

(o) "Industrial solid waste" means the solid waste generated by industrial processes and manufacturing.

(p) "Infectious waste" means: (1) Equipment, instruments, utensils, and formites of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (2) laboratory wastes, such as pathological specimens (e.g., all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites (any substance that may harbor or transmit pathogenic organisms) attendant thereto; (3) surgical operating room pathologic specimens and disposable fomites attendant thereto, and similar disposable materials from outpatient areas and emergency rooms.

(q) "Institutional solid waste" means solid wastes generated by educational, health care, correctional, and other institutional facilities.

(r) "Mining wastes" means residues which result from the extraction of raw materials from the earth.

(s) "Residential solid waste" means the wastes generated by the normal activities of households, including, but not limited to, food wastes, rubbish, ashes, and bulky wastes.

(t) "Responsible agency" means the organizational element that has the legal duty to ensure compliance with these guidelines.

(u) "Rubbish" means a general term for solid waste, excluding food wastes and ashes, taken from residences, commercial establishments, and institutions.

(v) "Satellite vehicle" means a small collection vehicle that transfers its load into a larger vehicle operating in conjunction with it.

(w) "Scavenging" means the uncontrolled and unauthorized removal of materials at any point in the solid waste management system.

(x) "Sludge" means the accumulated semiliquid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins. It does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved materials in irrigation return flows or other common water pollutants.

(y) "Solid waste" means garbage, refuse, sludges, and other discarded solid materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants. Unless specifically noted otherwise, the term "solid waste" as used in these guidelines shall not include mining, agricultural, and industrial solid wastes; hazardous wastes; sludges; construction and demolition wastes; and infectious wastes.

(z) "Stationary compactor" means a powered machine which is designed to compact solid waste or recyclable materials, and which remains stationary when in operation.

(aa) "Storage" means the interim containment of solid waste after generation and prior to collection for ultimate recovery or disposal.

(bb) "Solid waste storage container" means a receptacle used for the temporary storage of solid waste while awaiting collection.

(cc) "Street wastes" means materials picked up by manual or mechanical sweepings of alleys, streets, and sidewalks; wastes from public waste receptacles; and material removed from catch basins.

(dd) "Transfer station" means a site at which solid wastes are concentrated for transport to a processing facility or land disposal site. A transfer station may be fixed or mobile.

(ee) "Vector" means a carrier that is capable of transmitting a pathogen from one organism to another.

Subpart B—Requirements and Recommended Procedures

§ 243.200 Storage.

§ 243.200–1 Requirement.

(a) All solid wastes (or materials which have been separated for the purpose of recycling) shall be stored in such a manner that they do not constitute a fire, health, or safety hazard or provide food or harborage for vectors, and shall be contained or bundled so as not to result in spillage. All solid waste containing food wastes shall be securely stored in covered or closed containers which are nonabsorbent, leakproof, durable, easily cleanable (if reusable), and designed for safe handling. Containers shall be of an adequate size and in sufficient numbers to contain all food wastes, rubbish, and ashes that a residence or other establishment generates in the period of time between collections. Containers shall be maintained in a clean condition so that they do not constitute a nuisance, and to retard the harborage, feeding, and breeding of vectors. When serviced, storage containers should be emptied completely of all solid waste.

(b) Storage of bulky wastes shall include, but is not limited to, removing all doors from large household appliances and covering the item(s) to reduce the problems of an attractive nuisance, and the accumulation of solid waste and water in and around the bulky items.

(c) Reusable waste containers which are emptied manually shall not exceed 75 pounds (34.05 kg) when filled, and shall be capable of being serviced without the collector coming into physical contact with the solid waste.

(d) In the design of all buildings or other facilities which are constructed, modified, or leased after the effective date of these guidelines, there shall be provisions for storage in accordance with these guidelines which will accommodate the volume of solid waste anticipated, which may be easily cleaned and maintained, and which will allow for efficient, safe collection.

§ 243.200-2 Recommended procedures: Design.

(a) Reusable waste containers should be constructed of corrosion resistant metal or other material which will not absorb water, grease, or oil. The containers should be leakproof, including sides, seams, and bottoms, and be durable enough to withstand anticipated usage without rusting, cracking, or deforming in a manner that would impair serviceability. The interior of the container should be smooth without interior projections or rough seams which would make it difficult to clean or interfere with its emptying. The exterior of the container should be safe for handling with no cracks, holes, or jagged edges. Containers should be stored on a firm, level, well-drained surface which is large enough to accommodate all of the containers and which is maintained in a clean, spillage-free condition.

(1) Reusable waste containers which are emptied manually should have a capacity of no more than 35 gallons (132.51) in volume, unless they are mounted on casters and can be serviced by being rolled to the collection vehicle and tilted for emptying. The containers should be constructed with rounded edges and tapered sides with the larger diameter at the top of the container to facilitate discharge of the solid waste by gravity. Containers should have two handles or bails located directly opposite one another on the sides of the container. Containers should have covers which are tight-fitting to resist the intrusion of water and vectors, and should be equipped with a suitable handle. Containers should be designed so that they cannot be tipped over easily.

(2) Reusable waste containers which are emptied mechanically should be designed or equipped to prevent spillage or leakage during on-site storage, collection, or transport. The container should be easily cleanable and designed to allow easy access for depositing the waste and removing it by gravity or by mechanical means. The containers should be easily accessible to the collection vehicle in an area which can safely accommodate the dimensions and weight of the vehicle.

(b) Single-use plastic and paper bags should meet the National Sanitation Foundation Standard No. 31 for polyethylene refuse bags and Standard No. 32 for paper refuse bags, respectively. However, such bags do not need to have been certified by the National Sanitation Foundation. Single-use bags containing food wastes should be stored within the confines of a building or container between collection periods.

§ 243.201 Safety.

§ 243.201-1 Requirement.

Collection systems shall be operated in such a manner as to protect the health and safety of personnel associated with the operation.

§ 243.201-2 Recommended procedures: Operations.

(a) All solid waste collection personnel should receive instructions and training in safe container and waste handling techniques, and in the proper operation of collection equipment, such as those presented in *Operation Responsible: Safe Refuse Collection.*

(b) Personal protective equipment such as gloves, safety glasses, respirators, and footwear should be used by collection employees, as appropriate. This equipment should meet the applicable provisions of the Occupational Safety and Health Administration Standards for Subpart I—Personal Protective Equipment (29 CFR 1910.132 through 1910.137).

(c) Scavenging should be prohibited at all times to avoid injury and to prevent interference with collection operations.

(d) When conducting carryout collection, a leakproof and puncture-proof carrying container should be used to minimize the potential for physical contact between the collector and the solid waste or the liquids which may derive from it.

§ 243.202 Collection equipment.

§ 243.202–1 Requirement.

(a) All vehicles used for the collection and transportation of solid waste (or materials which have been separated for the purpose of recycling) which are considered to be operating in interstate or foreign commerce shall meet all applicable standards established by the Federal Government, including, but not limited to, Motor Carrier Safety Standards (49 CFR Parts 390 through 396) and Noise Emission Standards for Motor Carriers Engaged in Interstate Commerce (40 CFR Part 202). Federally owned collection vehicles shall be operated in compliance with Federal Motor Vehicle Safety Standards (49 CFR Parts 500 through 580).

(b) All vehicles used for the collection and transportation of solid waste (or materials which have been separated for the purpose of recycling) shall be enclosed or adequate provisions shall be made for suitable cover, so that while in transit there can be no spillage.

(c) The equipment used in the compaction, collection, and transportation of solid waste (or materials which have been separated for the purpose of recycling) shall be constructed, operated, and maintained in such a manner as to minimize health and safety hazards to solid waste management personnel and the public. This equipment shall be maintained in good condition and kept clean to prevent the propagation or attraction of vectors and the creation of nuisances.

(d) Collection equipment of the following types used for the collection, storage, and transportation of solid waste (or materials which have been separated for the purpose of recycling) shall meet the standards established by the American National Standards Institute (ANSI Z245.1, Safety Standards for Refuse Collection Equipment) as of the effective date(s) established in ANSI Z245.1:

(1) Rear-loading compaction equipment.

(2) Side-loading compaction equipment.

(3) Front-loading compaction equipment.

(4) Tilt-frame equipment.

(5) Hoist-type equipment.

(6) Satellite vehicles.

(7) Special collection compaction equipment.

(8) Stationary compaction equipment.

In the procurement of new collection equipment before the effective dates of ANSI Z245.1, equipment which meets the standards shall be obtained if available.

§ 243.202–2 Recommended procedures: Design.

(a) Whenever possible, enclosed, metal, leak-resistant compactor vehicles should be used for the collection of solid wastes.

(b) Safety devices, including, but not limited to, the following should be provided on all collection vehicles:

(1) Exterior rear-view mirrors.

(2) Back-up lights.

(3) Four-way emergency flashers.

(4) Easily accessible first aid equipment.

(5) Easily accessible fire extinguisher.

(6) Audible reverse warning device.

(c) If crew members ride outside the cab of the collection vehicle for short trips the vehicle should be equipped with handholds and platforms big enough to safeguard against slipping.

(d) Vehicle size should take into consideration: Local weight and height limits for all roads over which the vehicle will travel; turning radius; and loading height in the unloading position to insure overhead clearance in transfer stations, service buildings, incinerators, or other facilities.

(e) Engines which conserve fuel and minimize pollution should be used in collection vehicles to reduce fuel consumption and air pollution.

§ 243.202-3 Recommended procedures: Operations.

(a) Collection vehicles should be maintained and serviced according to manufacturers' recommendations, and receive periodic vehicle safety checks, including, but not limited to, inspection of brakes, windshield wipers, taillights, backup lights, audible reverse warning devices, tires, and hydraulic systems. Any irregularities should be repaired before the vehicle is used. Vehicles should also be cleaned thoroughly at least once a week.

(b) Solid waste should not be allowed to remain in collection vehicles over 24 hours and should only be left in a vehicle overnight when this practice does not constitute a fire, health, or safety hazard.

§ 243.203 Collection frequency.

§ 243.203-1 Requirement.

Solid wastes (or materials which have been separated for the purpose of recycling) shall be collected with frequency sufficient to inhibit the propagation or attraction of vectors and the creation of nuisances. Solid wastes which contain food wastes shall be collected at a minimum of once during each week. Bulky wastes shall be collected at a minimum of once every 3 months.

§ 243.203-2 Recommended procedures: Operations.

(a) The minimum collection frequency consistent with public health and safety should be adopted to minimize collection costs and fuel consumption. In establishing collection frequencies, generation rates, waste composition, and storage capacity should be taken into consideration.

(b) When solid wastes are separated at the point of storage into various categories for the purpose of resource recovery, a collection frequency should be designated for each waste category.

§ 243.204 Collection management.

§ 243.204-1 Requirement.

The collection of solid wastes (or materials which have been separated for the purpose of recycling) shall be conducted in a safe, efficient manner, strictly obeying all applicable traffic and other laws. The collection vehicle operator shall be responsible for immediately cleaning up all spillage caused by his operations, for protecting private and public property from damage resulting from his operations, and for creating no undue disturbance of the peace and quiet in residential areas in and through which he operates.

§ 243.204-2 Recommended procedures: Operations.

(a) Records should be maintained detailing all costs (capital, operating, and maintenance) associated with the collection system. These records should be used for scheduling maintenance and replacement, for budgeting, and for system evaluation and comparison.

(b) The collection system should be reviewed on a regular schedule to assure that environmentally adequate, economical, and efficient service is maintained.

(c) Solid waste collection systems should be operated in a manner designed to minimize fuel consumption, including, but not limited to, the following procedures.

(1) Collection vehicle routes should be designed to minimize driving distances and delays.

(2) Collection vehicles should receive regular tuneups, tires should be maintained at recommended pressures, and compaction equipment should be serv-

iced regularly to achieve the most efficient compaction.

(3) Compactor trucks should be used to reduce the number of trips to the disposal site.

(4) When the distance or travel time from collection routes to disposal sites is great, transfer stations should be used when cost effective.

(5) Residential solid waste containers which are serviced manually should be placed at the curb or alley for collection.

(6) For commercial wastes which do not contain food wastes, storage capacity should be increased in lieu of more frequent collection.

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PART 244—SOLID WASTE MANAGEMENT GUIDELINES FOR BEVERAGE CONTAINERS

Subpart A—General Provisions

Sec.

244.100 Scope.
244.101 Definitions.

Subpart B—Requirements

244.200 Requirements.
244.201 Use of returnable beverage containers.
244.202 Information.
244.203 Implementation decisions and reporting.
APPENDIX—RECOMMENDED BIBLIOGRAPHY

AUTHORITY: Secs. 1008 and 6004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6907, 6964).

SOURCE: 41 FR 41203, Sept. 21, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 244.100 Scope.

(a) The "Requirement" sections contained herein delineate minimum actions for Federal agencies for reducing beverage container waste.

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(b) Section 211 of the Act and Executive Order 11752 make the "Requirements" section of the guidelines mandatory upon Federal agencies. They are recommended for adoption by State and local governments and private agencies.

(c) *Intent and Objectives.* (1) These Guidelines for Beverage Containers are intended to achieve a reduction in beverage container solid waste and litter, resulting in savings in waste collection and disposal costs to the Federal Government. They are also intended to achieve the conservation and more efficient use of energy and material resources through the development of effective beverage distribution and container collection systems.

(2) The guidelines are intended to achieve these goals by making all beverage containers returnable and encouraging reuse of recycling of the returned containers. To accomplish the return of beverage containers, a deposit of at least five cents on each returnable beverage container is to be paid upon purchase by the consumer and refunded to the consumer when the empty container is returned to the dealer. This refund value provides a positive incentive for consumers to return the empty containers. Once containers are returned, nonrefillable containers can be recycled and refillable bottles can be reused.

(3) The minimum deposit of five cents has been chosen because it is deemed a large enough incentive to induce the return of most containers, and it is the most widely used deposit amount in present deposit systems. Because this action is intended to be compatible with present deposit systems, it is recommended that Federal facilities apply higher deposit levels in localities where higher levels are ordinarily used and lower deposit levels if the local area has an established return system with a minimum deposit level, for some or all beverage containers, of less than five cents.

(4) Final determination of how the requirements of the guidelines will be met rests with the head of each Federal agency.

(5) Federal facilities implementing the guidelines must charge refundable deposits on both refillable beverage containers and nonrefillable ones. Use of a refillable beverage container system will achieve the objectives of this guideline and will also most likely result in lower beverage prices for consumers. However, placing refundable deposits on nonrefillable containers, which are subsequently returned and recycled, also achieves the objectives of the guidelines.

(d) *Nonimplementation for Federal Facilities.* (1) The objectives of these guidelines are to reduce solid waste and litter and to conserve energy and materials through the use of a return system for beverage containers. In order to have a substantial impact on solid waste and litter created by beverage containers and to effect the concomitant energy and materials savings in a cost-effective manner, three conditions will be necessary: First, that consumers continue to purchase beverages from dealers at Federal facilities; second, that empty containers be returned and then reused or recycled; third, that the costs of implementation are not prohibitive. The head of each agency should consider these factors in order to make a determination regarding implementation of these guidelines.

(2) The Administrator recognizes that the requirements of these guidelines may not be practical at some Federal facilities due to geographic or logistic problems of a local nature. Further, he recognizes that the use of a returnable beverage container system will accomplish nothing if all reasonable efforts to implement such a system have failed to induce consumers to buy beverages in returnable containers or to return them when empty. When these situations persist, agencies may determine not to continue implementation of these guidelines.

(3) Federal agencies that make the determination not to use returnable containers shall provide to the Administrator the analysis and rationale used in making that determination as required by § 244.100(f)(3). The Administrator will publish notice of availability of this report in the FEDERAL REGISTER. The following conditions are considered to be valid reasons for not using returnable beverage containers.

(i) Situations in which, after a trial implementation, there is no alternative available that results in meeting the objectives of the guidelines in a cost effective manner. Examples of indications of this situation include, but are not limited to: (A) Data indicating a substantial and persistent reduction in beverage sales that is not directly attributable to any other cause; and (B) failure to establish a beverage container return rate that effectively achieves the objectives of these guidelines.

(ii) Situations in which no viable alternative can be found which avoids excessive, irrecoverable costs to the facility or the Agency. These conditions may prevail at either part or all of a facility. It is expected that facilities will use returnable beverage containers in those portions of their beverage distribution systems where it is effective to do so. However, it is recognized that in some situations, such as for unattended vending machines where it is impractical to establish refund locations, or in small remote outlets where the majority of consumers are transient, it may not be possible to use returnable containers effectively. The provisions for nonimplementation can be applied to those portions of a facility.

(e) The Environmental Protection Agency will render technical assistance and other guidance to Federal agencies when requested to do so pursuant to section 3(d)(1) of Executive Order 11752.

(f) *Reports*—(1) *Implementation Schedule Report.* This report is to advise the EPA of plans for the implementation of these guidelines. It is to be submitted to the Administrator within 60 days following an agency's determination to implement, and should include a list of planned implementation actions and a schedule indicating when those actions will be taken.

(2) [Reserved]

(3) *Nonimplementation Report.* Nonimplementation reports are to be submitted to the Administrator as soon as possible after a final agency determination has been made not to use returnable beverage containers but not later than sixty days after this determination. The Administrator will indicate to the reporting agency his concurrence or nonconcurrence with the agency's decision, including his reasons therefor. This concurrence or nonconcurrence is advisory.

Nonimplementation reports should include:

(i) A description of alternative actions considered or implemented, including those actions which, if taken or continued, would have involved a deposit or return system.

(ii) A description of ongoing actions that will be continued and actions taken or proposed that would preclude future implementation of a returnable beverage container system. This statement should identify all agency facilities or categories of facilities that will be affected.

(iii) An analysis in support of the determination not to implement a deposit system, including technical data, market studies, and policy considerations used in making that determination. If the determination not to implement is based on inability to achieve a cost-effective system, this analysis should include such things as sales volume, impact on total overhead costs, administrative costs, other costs of implementation, percentage of containers sold that are returned, solid waste and litter reduction, energy and materials saved, and retail prices (before and after implementation).

[41 FR 41203, Sept. 21, 1976, as amended at 47 FR 36602, Aug. 20, 1982]

§ 244.101 Definitions.

(a) "Beverage" means carbonated natural or mineral waters; soda water and similar carbonated soft drinks; and beer or other carbonated malt drinks in liquid form and intended for human consumption.

(b) "Beverage container" means an airtight container containing a beverage under pressure of carbonation. Cups and other open receptacles are specifically excluded from this definition.

(c) "Consumer" means any person who purchases a beverage in a beverage container for final use or consumption.

(d) "Dealer" means any person who engages in the sale of beverages in beverage containers to a consumer.

(e) "Deposit" means the sum paid to the dealer by the consumer when beverages are purchased in returnable beverage containers, and which is refunded when the beverage container is returned.

(f) "Distributor" means any person who engages in the sale of beverages, in beverage containers, to a dealer, including any manufacturer who engages in such sale.

(g) "Federal Agency" means any department, agency, establishment, or instrumentality of the executive branch of the United States Government.

(h) "Federal facility" means any building, installation, structure, land, or public work owned by or leased to the Federal Government. Ships at sea, aircraft in the air, land forces on maneuvers, and other mobile facilities; and United States Government installations located on foreign soil or on land outside the jurisdiction of the United States Government are not considered "Federal facilities" for the purpose of these guidelines.

(i) "On-Premise Sales" means sales transactions in which beverages are purchased by a consumer for immediate consumption within the area under control of the dealer.

(j) "Recycling" means the process by which recovered materials are transformed into new products.

(k) "Refillable Beverage Container" means a beverage container that when returned to a distributor or bottler is refilled with a beverage and reused.

(l) "Refund" means the sum, equal to the deposit, that is given to the consumer or the dealer or both in exchange for empty returnable beverage containers.

(m) "Returnable Beverage Container" means a beverage container for which a deposit is paid upon purchase and for which a refund of equal value is payable upon return.

Subpart B—Requirements

§ 244.200 Requirements.

§ 244.201 Use of returnable beverage containers.

(a) All beverages in beverage containers sold or offered for sale shall be sold in returnable beverage containers. On-premise sales are specifically excluded from this requirement provided that empty beverage containers are returned to the distributor for refilling, or are recycled, either by the dealer or by the distributor when markets for recyclable materials are available.

(b) The deposit shall be at least five (5) cents unless the local area has an established return system in operation with a lower minimum deposit level. In these specific areas, Federal facilities may adopt a minimum deposit equal to the local deposit level.

(c) A dealer shall accept from a consumer any empty beverage containers of the kind, size and brand sold by the dealer, and pay the consumer the refund value of the beverage container, provided the container is refillable or is labelled in accordance with § 244.202(a).

(d) The refund shall be provided at the place of sale whenever possible or as close to that place as practicable, and in any event, on the premises of the particular federal facility involved. Refund locations shall be conspicuously labelled as refund centers. If they are not in the immediate vicinity of the place of sale, notice of their location shall be prominently posted at that place of sale.

(e) A dealer shall not procure beverages in beverage containers from distributors who refuse to: Accept from the dealer any returnable beverage containers of the kind, size and brand sold by the distributor; pay to the dealer the refund value of the beverage containers; and reuse the returned containers or recycle them where markets for recyclable materials are available.

(f) Returned refillable beverage containers shall be returned to the distributor for refilling. Nonrefillable beverage containers shall be returned to the appropriate distributor or recycled, where markets for recyclable materials are available.

§ 244.202 Information.

(a) With the exception of refillable beverage containers, every returnable beverage container sold or offered for sale by a dealer shall clearly and conspicuously indicate, by embossing or by stamp, or by a label securely affixed to the beverage container, the refund value of the container and that the container is returnable.

(b) Dealers shall inform consumers that beverages are sold in returnable beverage containers by placing a sign, or a shelf label, or both, in close proximity to any sales display of beverages in returnable containers. That sign or label shall indicate that all containers are returnable, separately list the beverage price and deposit to be paid by the consumer, and shall indicate where the empty beverage containers may be returned for refund of the deposit.

§ 244.203 Implementation decisions and reporting.

Federal agencies are to determine whether or not to implement these guidelines by October 20, 1977. Reporting of that determination shall be in accordance with the following requirements:

(a) Federal agencies that plan to implement these guidelines shall report that decision to the Administrator in accordance with the procedures described in § 244.100(f)(1).

(b) Agencies that determine not to implement these guidelines shall provide to the Administrator a nonimplementation report in accordance with § 244.100(f)(3). This report shall include the reasons for nonimplementation, based on concepts presented in § 244.100(d).

[47 FR 36602, Aug. 20, 1982; 47 FR 41959, Sept. 23, 1982]

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PART 245—PROMULGATION RESOURCE RECOVERY FACILITIES GUIDELINES

Subpart A—General Provisions

Sec.
245.100 Scope.
245.101 Definitions.

Subpart B—Requirements and Recommended Procedures

245.200 Establishment or utilization of resource recovery facilities.
245.200-1 Requirements.
245.200-2 Recommended procedures: Regionalization.
245.200-3 Recommended procedures: Planning techniques.

Authority: Secs. 1008 and 6004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6907, 6964).

Source: 41 FR 41208, Sept. 21, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 245.100 Scope.

(a) These guidelines are applicable to the recovery of resources from residential, commercial, or institutional solid wastes.

(b) The "Requirement" sections contained herein delineate minimum actions for Federal agencies for planning and establishing resource recovery facilities. Pursuant to section 211 of the Solid Waste Disposal Act, as amended, and Executive Order 11752, the "Requirement" sections of this guideline are mandatory for Federal agencies. In addition, they are recommended to State, interstate, regional, and local governments for use in their activities.

(c) The "Recommended Procedures" sections are presented to suggest additional actions or preferred methods by which the objectives of the requirements can be realized. The "Recommended Procedures" are not mandatory for Federal agencies.

(d) These guidelines apply to all Federal agencies that have jurisdiction over any real property or facility the operation or administration of which involves such agency in residential, commercial or institutional solid wastes disposal activities either in-house or by contract. Federal land that is used solely for the disposal of non-Federal solid waste is not considred real property or a facility for the purpose of these guidelines.

(e) The Environment Protection Agency will render technical assistance and other guidance to Federal agencies when requested to do so pursuant to section 3(d)1 of Executive Order 11752.

(f) Within one year after the final promulgation of these guidelines, agencies shall make a determination as to what actions will be taken to establish a resource recovery facility in accordance with these guidelines and shall, within 60 days of such determination, submit to the Administrator a schedule of such actions.

(g) In order for the Administrator to establish the lead agency in each

Standard Metropolitan Statistical Area (SMSA) as addressed in § 245.200-1(b), each Agency shall provide the Administrator within 60 days after the final promulgation of these guidelines the following information:

List of all real property or facilities by SMSA that the agency has jurisdiction over, the operation or administration of which involves such agency in residential, commercial or institutional solid wastes disposal activities, either in-house or by contract, in amounts of more than one ton of solid waste per day (equivalent to 260 tons or more annually) after implementation of other Federal guidelines for waste reduction and source separation and that amount of solid waste.

(h) Within 90 days after final promulgation of these guidelines, the Administrator will establish the lead agency in each SMSA.

(i) Federal agencies that make the determination not to establish or utilize a resource recovery facility shall make a report to the Administrator fully explaining that determination. The Administrator shall publish in the FEDERAL REGISTER notice of the availability of this report to the public. In making this determination, agencies must consider energy conservation, environmental factors, and natural resource conservation as well as cost. Trade-offs between these factors must be analyzed prior to the decision not to establish or utilize a resource recovery facility. As all of these factors can be reduced to cost, the following are considered to be valid reasons for not establishing or utilizing a resource recovery facility when supported by individual facts and circumstances:

(1) Costs so high as to render establishing a resource recovery facility economically impracticable; or

(2) Inability to sell the recovered products due to lack of market.

(i) The report required by this section shall contain:

(A) A description of alternative actions considered with emphasis on those alternatives that involve resource recovery, and any actions that would preclude establishing or utilizing a resource recovery facility.

(B) A description of ongoing actions which will be continued and new actions taken or proposed. This statement should identify all agency facilities that will be affected by these actions including a brief description of how these facilities will be affected.

(C) An analysis of the action chosen by the agency including supporting technical data, market studies, and policy considerations so that the factors influencing the decision not to establish a resource recovery facility are clear.

(ii) The report required by this section shall be submitted to the Administrator as soon as possible after a final agency determination has been made not to establish or utilize a resource recovery facility, but in no case later than sixty days after such final determination. The Administrator shall indicate to the agency in writing his concurrence or disagreement with the agency's decision, including his reasons therefor.

(iii) Implementation of actions that would preclude establishing or utilizing a resource recovery facility shall be deferred for 60 days, from the Agency's receipt of the report required by § 245.100(g), in order to give the Administrator an opportunity to receive, analyze and seek clarification of the report.

(iv) It is recommended that where the report required by this section concerns an action for which an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act, that the report be circulated together with the EIS.

§ 245.101 Definitions.

As used in these guidelines:

(a) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other such non-manufacturing activities, and non-processing waste generated at industrial facilities such as office and packing wastes.

(b) "Disposal" means the collection, storage, treatment, utilization, processing, or final disposal of solid waste.

(c) "Facility" means any building, installation, structure, or public work owned by or leased to the Federal Government. Ships at sea, aircraft in the air, land forces on maneuvers, other mobile facilities, and U.S. Government installations located on foreign soil are not considered "Federal facilities" for the purpose of these guidelines.

(d) "Infectious waste" means: (1) Equipment, instruments, utensils, and fomites (any substance that may harbor or transmit pathogenic organisms) of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (2) laboratory wastes, such as pathological specimens (e.g., all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites attendant thereto; (3) surgical operating room pathologic specimens and disposable fomites attendant thereto and similar disposable materials from outpatient areas and emergency rooms.

(e) "Institutional solid waste" means solid wastes originating from educational, health care, correctional, and other institutional facilities.

(f) "Pyrolytic gas and oil" means gas or liquid products that possess useable heating value that is recovered from the heating of organic material (such as that found in solid waste), usually in an essentially oxygen-free atmosphere.

(g) "Recoverable resources" means materials that still have useful physical, chemical, or biological properties after serving their original purpose and can, therefore, be reused or recycled for the same or other purposes.

(h) "Recovery" means the process of obtaining materials or energy resources from solid waste.

(i) "Recycled material" means a material that is utilized in place of a primary, raw, or virgin material in manufacturing a product.

(j) "Recycling" means the process by which recovered materials are transformed into new products.

(k) "Residential solid waste" means the garbage, rubbish, trash, and other solid waste resulting from the normal activities of households.

(l) "Resource recovery facility" means any physical plant that processes residential, commercial, or institutional solid wastes biologically, chemically, or physically, and recovers useful products, such as shredded fuel, combustible oil or gas, steam, metal, glass, etc. for recycling.

(m) "Tons per day" means annual tonnage divided by 260 days.

Subpart B—Requirements and Recommended Procedures

§ 245.200 Establishment or utilization of resource recovery facilities.

§ 245.200-1 Requirements.

(a) A Federal agency that has jurisdiction over any real property or facility the operation or administration of which involves such agency in residential, commercial or institutional solid wastes disposal activities either inhouse or by contract in amounts of 100 tons or more per day (equivalent to 26,000 tons or more annually) after implementation of other Federal guidelines for waste reduction and source separation shall establish or utilize resource recovery facilities to separate and recover materials or energy or both from such solid waste.

(b) If any one Federal agency within a Standard Metropolitan Statistical Area that has jurisdiction over any real property or facility the operation or administration of which involves such agency in residential, commercial, or institutional solid wastes disposal activities either in-house or by contract in amounts of 50 tons or more per day (equivalent to 13,000 tons or more annually) after implementation of other Federal guidelines for waste reduction and source separation, and if the combined total of these solid wastes for all Federal agencies within the SMSA is 100 tons or more per day (equivalent to 26,000 tons or more annually) after implementation of other Federal guidelines for waste reduction and source separation, all Federal agencies within the SMSA shall establish or utilize one or more resource recovery facilities to separate and recover materials or energy or both from this solid waste. The agency that has jurisdiction over the disposal of the largest quantity of residential, commercial, or institutional solid wastes in the SMSA shall be designated the lead agency by the Administrator of EPA in the resource recovery facility planning process. The lead agency shall be responsible for planning, organizing, and managing the joint resource recovery activities of the agencies in the SMSA and shall report the compliance decision of the agencies in the SMSA in accordance with § 245.100 (f) or (i), as appropriate, in a consolidated report. All other agencies in the SMSA shall assist in planning such resource recovery activities.

(c) Agencies shall consult with appropriate State and local agencies, and with concerned local citizens and environmental groups prior to initiation of market analysis and facility design and construction to determine what effects the project might have on local, regional, and State solid waste management plans for the area and to determine the extent of prior resource recovery planning for the area. Resource recovery facilities established as a result of these guidelines shall be compatible with such plans.

(d) Resource recovery facilities established or utilized as a result of these guidelines shall be designed with a capacity sufficient to process at least all of the residential, commercial, or institutional solid wastes disposed of after implementation of other Federal guidelines for waste reduction and source separation, by the agencies that have jurisdiction over the Federal facilities that will utilize the resource recovery facility.

(e) Resource recovery facilities established or utilized as a result of these guidelines shall be designed to process at least 65 percent by wet weight of the input solid waste into recycled material, fuel, or energy. Thus, the weight of the unmarketable residue shall be no more than 35 percent by wet weight of the input solid waste. If inability to meet the 65 percent criteria is based on circumstances as stated in § 245.100(i) then the processing percentage shall be as great as practicable within those circumstances.

(f) An agency may determine, under § 245.100(i) not to establish or utilize a resource recovery facility when after appropriate analysis it is determined that markets for recovered products are not available, or that the cost of the resource recovery system would be so high as to be economically impracticable.

[41 FR 41208, Sept. 21, 1976, as amended at 47 FR 36603, Aug. 20, 1982]

§ 245.200-2 Recommended procedures: Regionalization.

(a) Federal agencies that have jurisdiction over facilities within a geographical area should enter into joint resource recovery ventures among themselves and with nearby communities in order to maximize economies of scale.

(b) If a community near a Federal facility operates or is planning to construct a resource recovery facility, the Federal agency having jurisdiction over that facility should participate as appropriate relative to waste load in the financing, construction, and operation of that facility.

§ 245.200-3 Recommended procedures: Planning techniques.

Planning for the implementation of a resource recovery facility should be performed in a systematic manner. A series of reports have been prepared by the Agency's Office of Solid Waste Management Programs. The series, titled Resource Recovery Plant Implementation; Guides for Municipal Officials, should be used as an aid in the planning phase.

(a) Planning and Overview (SW-157.1) provides a framework for the overall planning phase.

(b) Preceding the selection of a specific resource recovery technology, an investigation of markets should be made. Markets (SE-157.3) lists the markets for the recovered materials and outlines steps to be taken to secure those markets.

(c) The various resource recovery methods are covered in Technologies (SW-157.2).

(d) The economic viability of a specific resource recovery facility should be determined only after all costs are accounted for as outlined in Accounting Format (SW-157.6).

(e) Other reports in this series are:

Financing SW-157.4
Procurement SW-157.5
Risks and Contracts SW-157.7

Further Assistance SW-157.8

These reports may be obtained from: Solid Waste Information Materials Control Section, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268.

PART 246—SOURCE SEPARATION FOR MATERIALS RECOVERY GUIDELINES

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APPENDIX—RECOMMENDED BIBLIOGRAPHY

AUTHORITY: Secs. 1008 and 6004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6907, 6964).

SOURCE: 41 FR 16952, Apr. 23, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 246.100 Scope.

(a) These guidelines are applicable to the source separation of residential, commercial, and institutional solid wastes. Explicitly excluded are mining, agricultural, and industrial solid wastes; hazardous wastes; sludges; construction and demolition wastes; infectious wastes; classified waste.

(b) The "Requirement" sections contained herein delineate minimum actions for Federal agencies for the recovery of resources from solid waste through source separation. Pursuant to section 211 of the Solid Waste Disposal Act, as amended, and Executive Order 11752 section 4(a), the "Requirement" sections of these guidelines are mandatory for all Federal agencies that generate solid waste. In addition, they are recommended to State, interstate, regional, and local governments for use in their activities.

(c) The "Recommended Procedures" sections are presented to suggest actions or preferred methods by which the objectives of the requirements can be realized. The "Recommended Procedures" are not mandatory for Federal agencies.

(d) The Environmental Protection Agency will render technical assistance in the form of sample cost analysis formats, sample bid specifications, implementation guidance documents and other guidance to Federal agencies when requested to do so, pursuant to section 3(d)1 of Executive Order 11752.

(e) Within one year after the effective date of these guidelines, agencies shall make a final determination as to what actions shall be taken to adopt the requirements of these guidelines and shall, within two months of such determination, submit to the Administrator a schedule of such actions.

(f) Federal agencies that make the determination not to source separate as described in §§ 246.200-1, 246.201-1, and 246.202-1, for whatever reason, shall make available to the Administrator the analysis and rationale used in making that determination. The Administrator shall publish notice of the availability of this report to the general public in the FEDERAL REGISTER. The following are considered to be valid reasons for not source separating under individual facts and circumstances: inability to sell the recovered materials due to lack of market, and costs so unreasonably high as to render source separation for materials recovery economically impracticable.

(1) The following points are to be covered in the report:

(i) A description of alternative actions considered with emphasis on those alternatives which involve source separation for materials recovery.

(ii) A description of ongoing actions which will be continued and new actions taken or proposed. This statement should identify all agency facilities which will be affected by these actions including a brief description of how such facilities will be affected.

(iii) An analysis in support of the action chosen by the agency including technical data, market studies, and policy considerations used in arriving at such a determination.

In covering the points above, agencies should make every effort to present information succinctly in a form easily understood, but in sufficient detail so that the factors influencing the decision not to source separate for materials recovery are clear.

(2) The above report shall be submitted to the Administrator as soon as possible after a final agency determination has been made not to adopt the requirements of these guidelines, but in no case later than sixty days after such final determination. The Administrator will indicate to the agency his concurrence/nonconcurrence with the agency's decision, including his reason therefor.

(3) Implementation of actions that would preclude source separation for materials recovery shall be deferred, for sixty days where feasible, in order to give the Administrator an opportunity to receive, analyze and seek clarification of the above required report.

(4) It is recommended that where the report required by § 246.100(f) concerns an action for which an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act, that the report be circulated together with the EIS.

(g) The report required under § 246.100(e) and (f) shall be made on forms to be prescribed by the Administrator by notice in the FEDERAL REGISTER.

[41 FR 16952, Apr. 23, 1976, as amended at 47 FR 36603, Aug. 20, 1982]

§ 246.101 Definitions.

As used in these guidelines:

(a) "Agricultural solid waste" means the solid waste that is generated by the rearing of animals, and the producing and harvesting of crops or trees.

(b) "Baler" means a machine used to compress solid wastes, primary materials, or recoverable materials, with or without binding, to a density or from which will support handling and transportation as a material unit rather than requiring a disposable or reuseable container. This specifically excludes briquetters and stationary compaction equipment which is used to compact materials into disposable or reuseable containers.

(c) "Bulk container" means a large container that can either be pulled or lifted mechanically onto a service vehicle or emptied mechanically into a service vehicle.

(d) "Classified Waste" means waste material that has been given security classification in accordance with 50 U.S.C. 401 and Executive Order 11652.

(e) "Collection" means the act of removing solid waste (or materials which have been separated for the purpose of recycling) from a central storage point.

(f) "Commercial establishment" means stores, offices, restaurants, warehouses and other non-manufacturing activities.

(g) "Commercial solid waste" means all types of solid wastes generated by stores, offices, restaurants, warehouses and other non-manufacturing activities, and non-processing wastes such as office and packing wastes generated at industrial facilities.

(h) "Construction and demolition waste" means the waste building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings and other structures.

(i) "Compartmentalized vehicle" means a collection vehicle which has two or more compartments for placement of solid wastes or recyclable materials. The compartments may be within the main truck body or on the outside of that body as in the form of metal racks.

(j) "Corrugated container waste" means discarded corrugated boxes.

(k) "Corrugated box" means a container for goods which is composed of an inner fluting of material (corrugating medium) and one or two outer liners of material (linerboard).

(l) "Federal facility" means any building, installation, structure, land, or public work owned by or leased to the Federal Government. Ships at sea, aircraft in the air, land forces on maneuvers, and other mobile facilities are not considered Federal facilities for the purpose of these guidelines. United States Government installations located on foreign soil or on land outside the jurisdiction of the United States Government are not considered Federal facilities for the purpose of these guidelines.

(m) "Food waste" means the organic residues generated by the handling, storage, sale, preparation, cooking, and serving of foods; commonly called garbage.

(n) "Generation" means the act or process of producing solid waste.

(o) "High-grade paper" means letterhead, dry copy papers, miscellaneous business forms, stationery, typing paper, tablet sheets, and computer printout paper and cards, commonly sold as "white ledger," "computer printout" and "tab card" grade by the wastepaper industry.

(p) "Industrial solid waste" means the solid waste generated by industrial processes and manufacturing.

(q) "Infectious waste" means: (1) Equipment, instruments, utensils, and fomites (any substance that may harbor or transmit pathogenic organisms) of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (2) laboratory wastes, such as pathological specimens (e.g. all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites attendant thereto; (3) surgical operating room pathologic specimens and disposable fomites attendant thereto and similar disposable materials from outpatient areas and emergency rooms.

(r) "Institutional solid waste" means solid wastes generated by educational, health care, correctional and other institutional facilities.

(s) "Mining wastes" means residues which result from the extraction of raw materials from the earth.

(t) "Post-consumer waste" (PCW) means a material or product that has served its intended use and has been discarded for disposal or recovery after passing through the hands of a final consumer.

(u) "Recoverable resources" means materials that still have useful physical, chemical, or biological properties after serving their original purpose and can, therefore, be reused or recycled for the same or other purposes.

(v) "Recovery" means the process of obtaining materials or energy resources from solid waste.

(w) "Recycled material" means a material that is used in place of a primary, raw or virgin material in manufacturing a product.

(x) "Recycling" means the process by which recovered materials are transformed into new products.

(y) "Residential solid waste" means the wastes generated by the normal activities of households, including but not limited to, food wastes, rubbish, ashes, and bulky wastes.

(z) "Separate collection" means collecting recyclable materials which have been separated at the point of generation and keeping these materials separate from other collected solid waste in separate compartments of a single collection vehicle or through the use of separate collection vehicles.

(aa) "Sludge" means the accumulated semiliquid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins. It does not include solid or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved material in irrigation return flows or other common water pollutants.

(bb) "Solid waste" means garbage, refuse, sludge, and other discarded solid materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but does not include solids or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants. Unless specifically noted otherwise, the term "solid waste" as used in these guidelines shall not include mining, agricultural, and industrial solid wastes; hazardous wastes; sludges; construction and demolition wastes; and infectious wastes.

(cc) "Source separation" means the setting aside of recyclable materials at their point of generation by the generator.

(dd) "Specification" means a clear and accurate description of the technical requirements for materials, products or services, identifying the minimum requirements for quality and construction of materials and equipment necessary for an acceptable product. In general, specifications are in the form of written descriptions, drawings, prints, commercial designations, industry standards, and other descriptive references.

(ee) "Stationary compactor" means a powered machine which is designed to compact solid waste or recyclable materials, and which remains stationary when in operation.

(ff) "Storage" means the interim containment of solid waste after generation and prior to collection for ultimate recovery or disposal.

(gg) "Virgin material" means a raw material used in manufacturing that has been mined or harvested and has not as yet become a product.

Subpart B—Requirements and Recommended Procedures

§ 246.200 High-grade paper recovery.

§ 246.200–1 Requirements.

High-grade paper generated by office facilities of over 100 office workers shall be separated at the source of generation, separately collected, and sold for the purpose of recycling.

§ 246.200–2 Recommended procedures: High-grade paper recovery from smaller offices.

The recovery of high-grade paper generated by office facilities of less than 100 office workers should be investigated in conformance with the following recommended procedures and implemented where feasible.

§ 246.200–3 Recommended procedures: Market study.

An investigation of markets should be made by the organization responsible for the sale of recyclable materials in each Federal agency and should include at a minimum:

(a) Identifying potential purchasers of the recovered paper through standard market research techniques;

(b) Directly contacting buyers, and determining the buyers' quality specifications, the exact types of paper to be recycled, potential transportation agreements and any minimum quantity criteria; and

(c) Determining the price that the buyer will pay for the recovered paper and the willingness of the buyer to sign a contract for purchase of the paper at a guaranteed minimum price.

§ 246.200-4 Recommended procedures: Levels of separation.

A two-level separation is recommended for most facilities. This separation should consist of (a) high-grade wastepaper and (b) all other waste. Facilities that produce large enough quantities of waste computer paper and cards to make their separation into a separate category cost effective may choose to implement three levels of separation: (1) Computer papers, (2) other high-grade papers, (3) all other wastes.

§ 246.200-5 Recommended procedures: Methods of separation and collection.

(a) Systems designed to recover high grades of office paper at the source of generation, i.e., the desk, are the desk-top system, the two-wastebasket system, and the office centralized container system.

(b) With the desk-top system, recyclable paper is placed by the generator in a container on his desk, while other waste is placed in a wastebasket. With the two-wastebasket system, recyclable paper is placed by the generator in one desk-side wastebasket, and all other waste is placed in another. In the centralized container system, large containers for the collection of recyclables are placed in centralized locations within the office areas of the building. Nonrecyclable waste is placed in desk-side wastebaskets.

(c) The recommended system is the desk-top system because it is designed to maximize recovery of high value material in an economically feasible manner. While the two-wastebasket system and centralized container system have been implemented with success in isolated instances, data indicate that, on the whole, these systems have experienced high levels of contamination, low levels of participation, and low revenues. The desk-top system has been designed to minimize these problems.

(d) The precise method of separation and collection used to implement the desk-top system will depend upon such things as the physical layout of the individual facility, the ease of collection, and the projected cost effectiveness of using various methods. The recommended desk-top system is carried out in the following manner:

(1) Workers are to deposit high-grade paper into a desk-top tray or other small desk-top holder to be supplied by the agency. This holder should be designed in such a way as to prevent it holding contaminants, such as food or beverage containers.

(2) At the office worker's convenience or when the tray is filled, the worker carries the paper to a conveniently located bulk container within the office area. This large container should be located in an area the worker frequents in the normal course of business.

(3) In locations where computer cards and printouts are to be collected separately, the receptacle for these wastes should be near the computer terminal or in some other logical, centrally located place.

(4) Collection of the high-grade paper from the bulk containers in the office area should be performed by the janitorial or general maintenance service.

The number of locations and the frequency of collection of these containers will be determined by office size and maintenance staff capacity.

(e) Mixed paper and some high-grade office papers have also been recovered for recycling by hand-picking in an individual building's trash room or at a centralized facility serving several buildings. With these hand-picking systems, recyclable waste is not separated at the source of generation, but is mixed with other waste in the usual manner and removed to a centralized location where recyclable paper is picked out of the mixed waste by hand. Facilities may choose to use this method of high-grade paper recovery if it is shown by analysis to be economically preferable to source separation.

§ 246.200-6 Recommended procedures: Storage.

Among the alternatives for paper storage are on-site bailing, the use of stationary compactors, or storage in corrugated boxes or normal waste containers. Stored paper should be protected from fire, inclement weather, theft, and vandalism.

§ 246.200-7 Recommended procedures: Transportation.

Transportation to market may be supplied by the facility, by a private hauler, or by the purchaser. Collection of the recyclable paper should be on a regular, established schedule.

§ 246.200-8 Recommended procedures: Cost analysis.

After potential markets have been located (but prior to initiation of formal bidding procedures), preliminary determinations of various separation methods, storage, and transportation costs have been made, and estimated tonnages of both recoverable high-grade paper and residual solid waste have been established, an analysis should be conducted which compares the costs of the present waste collection and disposal system with the proposed segregated systems. At a minimum, the study should include all capital, operating and overhead costs and take into account credits for revenue from paper sales and savings from diverting recycled materials from disposal. Potential costs to upgrade collection and disposal practices to comply with EPA's Guidelines for the Storage and Collection of Residential, Commercial and Institutional Solid Wastes (40 CFR Part 243) and Thermal Processing and Land Disposal Guidelines (40 CFR Parts 240 and 241) should be included in the analysis. In formulating a separation system and evaluating its costs, every effort should be made to use janitorial and waste collection resources efficiently. This cost analysis should enable the facility to determine the most cost effective method of implementing the requirement of this part.

§ 246.200-9 Recommended procedure Contracts.

Formal bids should be requested fo purchase of the recovered materials such bids being solicited in conformance with bidding procedures established for the responsible agency. Contracts should include the buyer's quality specifications, quantity and transportation agreements, a guarante that the material will be accepted fo one year or more, and a guarantee minimum purchase price.

§ 246.200-10 Recommended procedure Public information and education.

A well-organized and well-execute public information and education program explaining the justification goals, methods and level of separatio should be conducted to inform an motivate office personnel and secur their cooperation in separating thei waste. This public information an education program should precede th program and continue on a regula basis for its duration.

§ 246.201 Residential materials recovery.

§ 246.201-1 Requirement.

Separation of used newspapers a the source of residential generation i conjunction with separate collectio shall be carried out at all facilities i which more than 500 families reside and the newspapers shall be sold fo the purpose of recycling.

§ 246.201-2 Recommended procedure Newsprint recovery from smaller residential facilities.

The recovery of newsprint generate by residential facilities of less than 50 families should be investigated in conformance with the following recommended procedures and implemente where feasible.

§ 246.201-3 Recommended procedure Glass, can, and mixed paper separation.

In areas where markets are available, it is recommended that glass cans, and mixed paper be separated a the source of generation and separately collected for the purpose of recycling.

§ 246.201-4 Recommended procedures: Market study.

An investigation of markets should be made for each material by the organization responsible for sale of recyclable materials in each agency and should include at a minimum:

(a) Identifying potential purchasers of the recovered material through standard market research techniques.

(b) Directly contacting buyers and determining the buyers' quality specifications, potential transportation agreements and any minimum quantity criteria.

(c) Determining the prices that the buyer will pay for the recovered material and the willingness of the buyer to sign a contract for the purchase of the material at guaranteed minimum prices.

§ 246.201-5 Recommended procedures: Methods of separation and collection.

Following separation within the home, any of the following methods of collection may be used:

(a) Materials may be placed at the curbside by the resident and may be collected from each household using separate trucks or compartmentalized vehicles.

(b) For multi-family dwellings, separated materials may be placed in bulk containers located outside of the building and collected by trucks dispatched to collect recyclables.

(c) Collection stations may be set up at convenient locations to which residents bring recyclables. These stations should provide separate bulk containers for each item to be recycled. The size and type of container will depend on the volume and type of material collected, the method of transportation to be used in hauling the materials to market and the frequency of removal.

§ 246.201-6 Recommended procedures: Transportation to market.

Transportation to market may be supplied by the facility or the community generating the waste, by a private hauler, or by the purchaser.

§ 246.201-7 Recommended procedures: Cost analysis.

After potential markets have been located (but prior to initiation of formal bidding procedures), preliminary determinations of various separation methods, storage and transportation costs have been made, and estimated tonnages of both recoverable materials and residual solid waste have been established, an analysis should be conducted which compares the costs of the present waste collection and disposal system with the proposed segregated systems. At a minimum this study should include all capital, operating and overhead costs and take into account credits for revenue from paper sales and savings from diverting recycled materials from disposal. Potential costs to upgrade collection and disposal practices to comply with EPA's Guidelines for the Storage and Collection of Residential, Commercial and Institutional Solid Wastes (40 CFR Part 243) and Thermal Processing and Land Disposal Guidelines (40 CFR Parts 240 and 241) should be included in the analysis. In formulating a separate collection system and evaluating its costs, every effort should be made to use idle equipment and underutilized collection manpower to reduce separate collection costs. This cost analysis should enable the facility to determine the most cost effective method if implementing the requirements of this part.

§ 246.201-8 Recommended procedures: Contracts.

Formal bids should be requested for purchase of the recovered materials, such bids being solicited in conformance with bidding procedures established for the responsible jurisdiction. Contracts should include the buyer's quality specifications, quantity and transportation agreements, a guarantee that the material will be accepted for one year or more and a guaranteed minimum purchase price.

§ 246.201-9 Recommended procedures: Public information and education.

A well organized and well executed public information and education program explaining the justification, goals, methods and level of separation should be conducted to inform and motivate householders and to secure their cooperation in separating their waste. This public information and education program should precede the program and continue on a regular basis for its duration.

§ 246.202 Corrugated container recovery.

§ 246.202-1 Requirement.

Any commercial establishment generating 10 or more tons of waste corrugated containers per month shall separately collect and sell this material for the purpose of recycling.

§ 246.202-2 Recommended procedures: Corrugated container recovery from smaller commercial facilities.

The recovery of corrugated containers from commercial facilities generating less than 10 tons per month should be investigated in conformance with the following recommended procedures and implemented where feasible.

§ 246.202-3 Recommended procedures: Market study.

An investigation of markets should be made by the organization responsible for sale of recyclable material in each Federal agency and should include at a minimum:

(a) Identifying potential purchasers of the recovered corrugated through standard market research techniques.

(b) Directly contacting buyers and determining the buyers' quality specifications, potential transportation agreements and any minimum quantity criteria.

(c) Determining the price that the buyer will pay for the recovered corrugated and the willingness of the buyer to sign a contract for purchase of the paper at a guaranteed minimum price.

§ 246.202-4 Recommended procedures: Methods of separation and storage.

The method selected will depend upon such variables as the physical layout of the individual generating facility, the rate at which the corrugated accumulates, the storage capacity of the facility, and the projected cost-effectiveness of using the various methods. All of the following suggested modes of separation and storag presuppose that the corrugated boxe will be accumulated at a central loca tion in the facility after their content are removed and that the boxes ar flattened.

(a) Balers of various sizes: Corrugat ed boxes are placed in balers and com pacted into bales. These bales may b stored inside or outside of the facility The bales should be protected from fire, inclement weather, theft, an vandalism.

(b) Stationary compactors or bul containers: Corrugated boxes ar placed in a stationary compactor o bulk containers outside of the facility The containers should be protecte from fire, inclement weather, thef and vandalism.

§ 246.202-5 Recommended procedure Transportation.

Transportation to market may b supplied by either the facility, a pri vate hauler or the purchaser. In facili ties to which goods are delivered from a central warehouse, corrugated ma be backhauled by delivery trucks t the central facility and baled there fo delivery to a user.

§ 246.202-6 Recommended procedure Cost analysis.

After potential markets have bee identified (but prior to initiation o formal bidding), preliminary determi nations of various separation method storage and transportation costs hav been made, and estimated tonnages o both recoverable material and residua solid waste have been established, a analysis should be conducted whic compares the costs of the presen waste collection and disposal syste with the proposed segregated system At a minimum, the study should in clude all capital, operating and over head costs and take into account cred its for revenue from paper sales an savings from diverting recycled mate rials from disposal. Potential costs t upgrade collection and disposal prac tices to comply with EPA's Guideline for the Storage and Collection of Res idential, Commercial and Institution Solid Wastes (40 CFR Part 243) an Thermal Processing and Land Dispo al Guidelines (40 CFR Parts 240 and 241) should be included in the analysis. This cost analysis should enable the facility to determine the most cost effective method of implementing these guidelines.

§ 246.202-7 Recommended procedures: Establishment of purchase contract.

Formal bids should be requested for purchase of the recovered materials, such bids being solicited in conformance with bidding procedures established for the responsible agency. Contracts should include the buyer's quality specifications, transportation agreements, a guarantee that the material will be accepted for one year or more and a guaranteed minimum purchase price.

§ 246.203 Reevaluation.

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PART 247—GUIDELINES FOR PROCUREMENT OF PRODUCTS THAT CONTAIN RECYCLED MATERIAL

Subpart A—General Provisions

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247.100 Scope.
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Subpart B—Recommended Procedures

247.200 Specifications.
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247.202 Solid-waste-derived-fuel.
247.202-1 Recommended procedures: Procurement of solid-waste-derived-fuel.

AUTHORITY: Solid Waste Disposal Act of 1965 (Pub. L. 89-272) as amended by the Resource Recovery Act of 1970 (Pub. L. 91-512).

SOURCE: 41 FR 2357, Jan. 15, 1976, unless otherwise noted.

Subpart A—General Provisions

§ 247.100 Scope.

(a) Compliance with the procedures recommended in these guidelines is not mandatory for Federal agencies. These procedures are recommended to Federal, State, Interstate, Regional and Local Governments and private business and institutions for the review of specifications and the procurement of products.

(b) These guidelines recommend procedures that can bring about the increased use of recycled material in personal and real property procured by Federal agencies if the recommendations contained herein are adopted by parties preparing specifications for products to be procured and by parties purchasing these products.

(c) The "Recommended Procedures" contained herein delineate actions that Federal agencies should use to ascertain that the specifications they are responsible for, and the procurement actions that they take, will bring about the increased use of recycled material.

(d) These guidelines should be applicable to all Agencies that draft specifications for products or procure products using those specifications, or both. Agencies that procure products using specifications that are formulated by the Federal Government should procure those products using the recommendations contained in these guidelines at all levels of procurement. These guidelines should also apply to products procured by contractors when the controlling agency drafts the specifications used by the contractor. These guidelines should not be applied to the procurement of products that are purchased using specifications that are not drafted by Federal agencies.

(e) The Environmental Protection Agency will render technical assistance and other guidance to Federal agencies when requested to do so pursuant to section 3(d)1 of Executive Order 11752.

§ 247.101 Definitions.

As used in these guidelines:

(a) "Fixed source" means, for the purpose of these guidelines, a stationary facility that converts fossil fuel into energy, such as steam, hot water, electricity, etc.

(b) "Material specification" means a specification that stipulates the use of certain materials to meet the necessary performance requirements.

(c) "Performance specification" means a specification that states the desired operation or function of a product but does not specify the materials from which the product must be constructed.

(d) "Personal property" means any property that is not real property and that is movable or not attached to the land. Personal property can be a single or multi-component or multi-material product.

(e) "Post consumer waste (PCW)" means a material or product that has served its intended use and has been discarded for disposal after passing through the hands of a final user. "Post consumer waste" is a part of the broader category, "Recycled material."

(f) "Real property" means any property that is immovable and attached to the land.

(g) "Recycled material" means a material that can be utilized in place of a raw or virgin material in manufacturing a product and consists of materials derived from post consumer waste, industrial scrap, material derived from agricultural wastes and other items, all of which can be used in the manufacture of new products.

(h) "Responsible agency" means a department, agency, establishment or instrumentality of the executive branch of the Federal Government or the organizational element within such responsible agency that has the primary responsibility for procurement of materials or products or the preparation of specifications for the procurement of materials or products.

(i) "Solid waste" means garbage, refuse, sludges, and other discarded solid materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but does not include solids or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flow, or other common water pollutants.

(j) "Solid-waste-derived fuel" means a fuel that is produced from solid waste that can be used as a primary or supplementary fuel in conjunction with or in place of fossil fuels. The solid-waste-derived fuel can be in the form of raw (unprocessed) solid waste, shredded (or pulped) and classified solid waste, gas or oil derived from pyrolyzed solid waste, or gas derived from the biodegradation of solid waste.

(k) "Specification" means a clear and accurate description of the technical requirement for materials, products or services, which specifies the minimum requirement for quality and construction of materials and equipment necessary for an acceptable product. In general, specifications are in the form of written descriptions, drawings, prints, commercial designations, industry standards, and other descriptive references.

(l) "Virgin material" means a raw material used in manufacturing that has been mined or harvested and has not yet become a product.

Subpart B—Recommended Procedures

§ 247.200 Specifications.

§ 247.200-1 Recommended procedures: Specification review.

(a) All agencies that have the responsibility for drafting or reviewing specifications for products procured by the Federal Government should review those specifications and ascertain whether recycled materials are excluded from the specifications. All specifications with exclusions should be rewritten without the exclusion, unless performance standards would not be satisfied.

(b) Any statement in a specification that requires the product to be manufactured from virgin materials should be eliminated, unless performance standards would not be satisfied.

(c) All agencies should revise specifications used in purchasing personal and real property so that all specifications require the inclusion of recycled material to the maximum extent practicable.

(d) All specifications should be revised if the performance requirements are so stringent that they arbitrarily exclude products that contain the maximum practical amount of recycled materials.

(e) The review process should be completed at the next specification review or at the time of the next major procurement action.

(f) Specifications should require the recycled material contained in the products to be post-consumer waste whenever practicable or that the recycled material specified contain the highest percentage of post-consumer waste that is practicable.

(g) If the inclusion of recycled material to the maximum extent practicable as in § 247.200-1(c) cannot be determined by the specification writer, then the specification should encourage manufacturers to include recycled material to the maximum extent that will still allow the product to meet the performance standards required.

§ 247.200-2 Recommended procedures: Consultation.

The determination of practicable percentages of recycled material to be contained in a product should be established by consultation with the Bureau of Standards of the U.S. Department of Commerce, American Society of Testing and Materials Engineers (ASTM), other appropriate groups who are involved with product performance standards, the U.S. Environmental Protection Agency, and through appropriate literature review and testing.

§ 247.201 Procurement.

§ 247.201-1 Recommended procedures: Procurement procedures.

(a) Within the constraints of the specification recommendations stated in § 247.200-1 (a) through (g), and applicable Federal procurement laws and regulations procurement officials should give preference to the selection of products containing the highest percentage of recycled material.

(b) Procurement agents should require that vendors certify the recycled material content, specifically identifying the percentage of post consumer waste and other recycled material that is in the product. The certification should be in the form of a label on the product or a statement verified by the vendor attached to the bid documents.

(c) The certification on multi-component or multi-material products should verify the percentage of post consumer waste and recycled material contained in the major constituents of the product.

§ 247.202 Solid-waste-derived-fuel.

§ 247.202–1 Recommended procedures: Procurement of solid-waste-derived-fuel.

Agencies that generate heat, mechanical, and/or electrical energy from fixed source fossil fuel systems that have the technical capability of using solid-waste-derived-fuel as a primary or supplementary fuel should use solid-waste-derived-fuel to the maximum extent practicable.

PART 248—GUIDELINE FOR FEDERAL PROCUREMENT OF BUILDING INSULATION PRODUCTS CONTAINING RECOVERED MATERIALS

Subpart A—General

Sec.
248.1 Purpose.
248.2 Designation.
248.3 Applicability.
248.4 Definitions.

Subpart B—Specifications

248.10 Revisions.
248.11 Recommendations.

Subpart C—Affirmative Procurement Program

248.20 General.
248.21 Preference program.
248.22 Promotion program.
248.23 Estimates, certification, and verification.
248.24 Annual review and monitoring.
248.25 Implementation.

AUTHORITY: 42 U.S.C. 6912(a) and 6962.

SOURCE: 54 FR 7356, Feb. 17, 1989, unless otherwise noted.

Subpart A—General

§ 248.1 Purpose.

(a) The purpose of this guideline is to assist procuring agencies in complying with the requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA or the Act), as amended, 42 U.S.C. 6962, as that section applies to procurement of building insulation products designated in § 248.2 of this part.

(b) This guideline contains recommendations for use in implementing the requirements of section 6002, including revision of specifications, purchasing activities, and procurement.

(c) EPA believes that adherence to the recommendations in the guideline constitutes compliance with section 6002. However, procuring agencies may adopt other types of procurement programs consistent with section 6002.

§ 248.2 Designation.

EPA designates building insulation products as items which are or can be produced with recovered materials and whose procurement by procuring agencies will carry out the objectives of section 6002 of RCRA.

§ 248.3 Applicability.

(a)(1) This guideline applies to all procuring agencies and to all procurement actions involving building insulation products where the procuring agency purchases in excess of $10,000 worth of one of these items during the course of a fiscal year, or where the cost of such items or of functionally equivalent items purchased during the preceding fiscal year was $10,000 or more. For purposes of the $10,000 threshold, functional equivalency extends to all building insulation products used for ceilings, floors, foundations, and walls. All building insulation products are considered to be functionally equivalent and include the following product types and materials:

(i) Loose-fill insulation, including but not limited to cellulose fiber, mineral fibers (fiberglass and rock wool), vermiculite, and perlite;

(ii) Blanket and batt insulation, including but not limited to mineral fibers (fiberglass and rock wool);

(iii) Board (sheathing, roof decking, wall panel) insulation, including but not limited to cellulose fiber fiberboard, perlite composite board, polyurethane, polyisocyanurate, polystyrene, phenolics, and composites; and

(iv) Spray-in-place insulation, including but not limited to foam-in-place polyurethane and polyisocyanurate, and spray-on cellulose.

(2) This guideline applies to Federal agencies, to State and local agencies using appropriated Federal funds to procure building insulation products, and to persons contracting with any such agencies with respect to work performed under such contracts. Federal agencies should note that the requirements of RCRA section 6002 apply to them whether or not appropriated Federal funds are used for procurement of items designated by EPA.

(3) The $10,000 threshold applies to procuring agencies as a whole rather than to agency subgroups such as regional offices or subagencies.

(b) The term "procurement actions" includes purchases made directly by a procuring agency and purchases made directly by any person in support of work being performed for a procuring agency (e.g., by a contractor).

(c) This guideline does not apply to purchases which are not the direct result of a contract with or a grant, loan, or funds disbursement to a procuring agency.

§ 248.4 Definitions.

As used in this guideline:

(a) "Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 *et seq.*

(b) "Blanket insulation" means relatively flat and flexible insulation in coherent sheet form, furnished in units of substantial area. Batt insulation is included in this term.

(c) "Board insulation" means semi-rigid insulation preformed into rectangular units having a degree of suppleness, particularly related to their geometrical dimensions.

(d) "Building insulation" means a material, primarily designed to resist heat flow, which is installed between the conditioned volume of a building and adjacent unconditioned volumes or the outside. This term includes but is not limited to insulation products such as blanket, board, spray-in-place, and loose-fill that are used as ceiling, floor, foundation, and wall insulation.

(e) "Ceiling Insulation" means a material, primarily designed to resist heat flow, which is installed between the conditioned area of a building and an unconditioned attic as well as common ceiling floor assemblies between separately conditioned units in multi-unit structures. Where the conditioned area of a building extends to the roof, ceiling insulation includes such a material used between the underside and upperside of the roof.

(f) "Cellular polyisocyanurate insulation" means insulation produced principally by the polymerization of polymeric polyisocyanates, usually in the presence of polyhydroxl compounds with the addition of catalysts, cell stabilizers, and blowing agents.

(g) "Cellular polystyrene insulation" means an organic foam composed principally of polymerized styrene resin processed to form a homogenous rigid mass of cells.

(h) "Cellular polyurethane insulation" means insulation composed principally of the catalyzed reaction product of polyisocyanurates and polyhydroxl compounds, processed usually with a blowing agent to form a rigid foam having a predominantly closed cell structure.

(i) "Cellulose" means vegetable fiber such as paper, wood, and cane.

(j) "Cellulose fiber fiberboard" means insulation composed principally of cellulose fibers usually derived from paper, paperboard stock, cane, or wood, with or without binders.

(k) "Cellulose fiber loose-fill" means a basic material of recycled wood-based cellulosic fiber made from selected paper, paperboard stock, or ground wood stock, excluding contaminated materials which may reasonably be expected to be retained in the finished product, with suitable chemicals introduced to provide properties such as flame resistance, processing and handling characteristics. The basic cellulosic material may be processed into a form suitable for installation by pneumatic or pouring methods.

(l) "Commercial Item Descriptions" are a series of simplified item descriptions under the Federal specifications-and-standards program used in the acquisition of commercial off-the-shelf and commercial type products.

(m) "Conditioned" means heated and/or mechanically cooled.

(n) "Federal agency" means any department, agency, or other instrumentality of the Federal government; any independent agency or establishment of the Federal government including any government corporation; and the Government Printing Office.

(o) "Fiberglass insulation" means insulation which is composed principally of glass fibers, with or without binders.

(p) "Floor insulation" means a material, primarily designed to resist heat flow, which is installed between the first level conditioned area of a building and an unconditioned basement, a crawl space, or the outside beneath it. Where the first level conditioned area of a building is on a ground level concrete slab, floor insulation includes such a material installed around the perimeter of or on the slab. In the case of mobile homes, floor insulation also means skirting to enclose the space between the building and the ground.

(q) "Foam-in-place insulation" foam is rigid cellular foam produced by catalyzed chemical reactions that hardens at the site of the work. The term includes spray-applied and injected applications such as spray-in-place foam and pour-in-place.

(r) "Foundation insulation" means a material, primarily designed to resist heat flow, which is installed in foundation walls between conditioned volumes and unconditioned volumes and the outside or surrounding earth, at the perimeters of concrete slab-on-grade foundations, and at common foundation wall assemblies between conditioned basement volumes.

(s) "Glass fiber reinforced polyisocyanurate/polyurethane foam" means cellular polyisocyanurate or cellular polyurethane insulation made with glass fibers within the foam core.

(t) "Invitation For Bids" is the solicitation for prospective suppliers by a purchaser requesting their competitive price quotations.

(u) "Loose-fill insulation" means insulation in granular, nodular, fibrous, powdery, or similar form, designed to be installed by pouring, blowing or hand placement.

(v) "Mineral fiber insulation" means insulation (rock wool or fiberglass) which is composed principally of fibers manufactured from rock, slag or glass, with or without binders.

(w) "Perlite composite board" means insulation board composed of expanded perlite and fibers formed into rigid, flat, rectangular units with a suitable sizing material incorporated in the product. It may have on one or both surfaces a facing or coating to prevent excessive hot bitumen strike-in during roofing installation.

(x) "Person" means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, Federal agency, State, municipality, commission, political subdivision of a State, or any interstate body.

(y) "Phenolic insulation" means insulation made with phenolic plastics which are plastics based on resins made by the condensation of phenols, such as phenol or cresol, with aldehydes.

(z) "Plastic rigid foam" means cellular polyurethane insulation, cellular polyisocyanurate insulation, glass fiber reinforced polyisocyanurate/polyurethane foam insulation, cellular polystyrene insulation, phenolic foam insulation, spray-in-place foam and foam-in-place insulation.

(aa) "Postconsumer recovered paper" means:

(1) Paper, paperboard and fibrous wastes from retail stores, office buildings, homes and so forth, after they have passed through their end-usage as a consumer item including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards and used cordage; and

(2) All paper, paperboard and fibrous wastes that enter and are collected from municipal solid waste.

(bb) "Practicable" means capable of being used consistent with: performance in accordance with applicable specifications, availability at a reasonable price, availability within a reasonable period of time, and maintenance of a satisfactory level of competition.

(cc) "Procurement item" means any device, good, substance, material, product, or other item, whether real or personal property, which is the subject of any purchase, barter, or other exchange made to procure such item.

(dd) "Procuring agency" means any Federal agency, or any State agency or agency of a political subdivision of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract.

(ee) "Purchasing" means the act of and the function of responsibility for the acquisition of equipment, materials, supplies, and services, including: buying, determining the need, selecting the supplier, arriving at a fair and reasonable price and terms and conditions, preparing the contract or purchase order, and follow up.

(ff) "Purchasing activities" means all activities included in the purchasing function.

(gg) "Recovered materials" means waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

(hh) "Request for Proposal" is a request for an offer by one party to another of terms and conditions with references to some work or undertaking; the initial overture or preliminary statement for consideration by the other party to a proposed agreement.

(ii) Rock wool insulation" means insulation which is composed principally from fibers manufactured from slag or natural rock, with or without binders.

(jj) "Specification" means a description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. In general, specifications are in the form of written commercial designations, industry standards, and other descriptive references.

(kk) "Spray-in-place insulation" means insulation material that is sprayed onto a surface or into cavities and includes cellulose fiber spray-on as well as plastic rigid foam products.

(ll) "Spray-in-place foam" is rigid cellular polyurethane or polyisocyanurate foam produced by catalyzed chemical reactions that hardens at the site of the work. The term includes spray-applied and injected applications.

(mm) "Wall insulation" means a material, primarily designed to resist heat flow, which is installed within or on the walls between conditioned areas of a building and unconditioned areas of a building or the outside, as well as common wall assemblies between separately conditioned units in multiple unit structures.

Subpart B—Specifications

§ 248.10 Revisions.

(a) Federal agencies that have the responsibility for drafting or reviewing specifications for procurement items procured by Federal agencies were required to revise their specifications, by May 8, 1986, to eliminate any exclusion of recovered materials and any requirement that items be manufactured from virgin materials.

(b) Within one year after the effective date of this guideline, each procuring agency must assure that its specifications for building insulation products require the use of recovered materials to the maximum extent possible without jeopardizing the intended end use of these items.

§ 248.11 Recommendations.

(a) Procuring agencies should continue to reference Commercial Item Descriptions or appropriate standards when purchasing building insulation products, after such Commercial Item Descriptions and industry standards (and specifications which are referenced) have been reviewed to be certain that the use of recovered materials is allowed.

(b) Procuring agencies should include minimum content standards or substantially equivalent methods to prefer recovered materials content in their invitations for bids and requests for proposals when purchasing building insulation products or causing the purchase of building insulation products in any contract.

(c) If a procuring agency determines that a building insulation product containing recovered materials cannot meet reasonable performance standards, then the agency can exclude the product on a case-by-case basis. Procuring agencies should document such determinations, and the documentation should reference the particular tests used to judge performance. Procuring agencies should also reference such documentation in subsequent solicitations for the specific item to avoid repetition of previously documented findings.

(d)(1) Procuring agencies should assure that language in new specifications for new building insulation products, and for existing products which are introduced with recovered materials content, allow recovered materials content. Methods to monitor the introduction of new or adapted products are detailed in §§ 248.21 and 248.24 of this part.

(2) As new building insulation products containing or capable of containing recovered materials are identified, minimum content standards or equivalent preferences for recovered material content should be inserted in invitations for bids and requests for proposals whenever such products could be offered.

Subpart C—Affirmative Procurement Program

§ 248.20 General.

Within one year after the date of publication of this guideline as a final rule, each procuring agency which procures building insulation products must establish an affirmative program for procuring such items containing recovered materials to the maximum extent practicable. The program must meet the requirements of section 6002(i) of RCRA, including the establishment of a preference program; a promotion program; procedures for obtaining estimates and certification of recovered materials content and for verifying the estimates and certifications; and an annual review and monitoring program. This subpart provides recommendations for implementing section 6002(i). Note that a procuring agency's responsibility to procure building insulation products containing recovered materials to the maximum extent practicable is not negated when the agency contracts with another person to specify or to supply the products.

§ 248.21 Preference program.

(a)(1) EPA recommends that procuring agencies establish minimum recovered material content standards for building insulation products commercially available with recovered materials content, subject to the limitations described in paragraphs (a)(2) and (c) of this section, so as to achieve procurement of building insulation products containing recovered materials to the maximum extent practicable.

(2) In accordance with RCRA section 6002(i), EPA recommends the establishment of minimum postconsumer recovered paper content standards for building insulation products made with cellulose fiber.

(3) EPA recommends that minimum content standards:

(i) Be based on insulation material type,

(ii) Be based on the weight of component parts,

(iii) Refer only to the core insulation material and exclude from consideration any facing, binding, or other materials surrounding or attached to the core, and

(iv) Include any insulation material that is used in composite products.

(4) EPA recommends that the following minimum content standards be used:

TABLE 1—RECOMMENDED MINIMUM CONTENT STANDARDS FOR INSULATION

Material type	Percent by weight
Cellulose loose-fill and spray-on	75 percent postconsumer recovered paper

BLE 1—RECOMMENDED MINIMUM CONTENT
STANDARDS FOR INSULATION—Continued

Material type	Percent by weight
e composite board	23 percent postconsumer recovered paper
c rigid foam, polyisocyanurate/poly- thane:	
Rigid foam	9 percent recovered material
Foam-in-place	5 percent recovered material
Glass fiber reinforced	6 percent recovered material
olic rigid foam	5 percent recovered material
wool	50 percent recovered material

E.—The minimum content standards are
ed on the weight of material (not
ume) in the insulating core only.

5) EPA recommends that procuring
encies revise their minimum content
ndards as necessary to reflect cur-
t market availability of building in-
ation containing recovered materi-
.

6) EPA recommends that procuring
encies which have established mini-
im content standards in accordance
h paragraph (a)(1) of this section
the following approach in the
sign phase when it is contemplated
at the agency will contract for con-
uction, alteration, or repair of
ildings, where the contractor will be
quired to supply building insulation
oducts:

i) Place an affirmative responsibil-
upon the "designing architect"
e., the architect or engineer, wheth-
an employee or contractor, who is
sponsible for project design) to in-
ide as a design consideration the
blic policy preference for the use of
ilding insulation products contain-
recovered materials.

ii) Require that the designing archi-
ct select the type of building insula-
n to be procured. If more than one
pe of insulation which meets the
ency's minimum content standards
suitable, the type with the highest minimum content standard should be preferred.

(iii) Require that the designing architect justify in writing the architect's selection of building insulation types not on the procuring agency's minimum content standards list and review these justifications to assure that they are consistent with RCRA section 6002. When the designing architect chooses a type of building insulation for which the procuring agency has not established a minimum content standard, the procuring agency should use the procedures described in paragraph (b) of this section.

(iv) Require that the designing architect determine whether the selected types of building insulation are practicably available in products that meet the procuring agency's minimum content standards and further require that, if the designing architect determines that the selected building insulation products are not practicably available in products that meet the procuring agency's minimum content standards, the architect must advise the procuring agency in writing as to the recovered materials content that is practicably available.

(v) If the selected type of building insulation is available in products that meet the procuring agency's minimum content standards, specify in its solicitation the type(s) of building insulation required and the minimum recovered materials content established by the procuring agency in accordance with paragraph (a)(1) of this section for that type of insulation.

(vi) If the type of building insulation selected is not practicably available in products that meet the procuring agency's minimum content standards, specify in its solicitation the type(s) of insulation required and a minimum recovered materials content for that insulation equal to the percentage of recovered materials content that is practicably available.

(b) EPA recommends that procuring agencies use the case-by-case approach for individual procurements of insulation when the procuring agency has not established a minimum content standard for the type of insulation to be procured. Further, EPA recommends that procuring agencies document any decisions to procure such products to assure that the decision is consistent with RCRA section 6002.

(1) In the case of invitations for bid (IFBs), EPA recommends that procuring agencies give preference to bidders offering to supply building insulation products containing recovered materials; and that all other things being equal, the bidder offering the highest percentage of recovered material be awarded the contract.

(2) In the case of requests for proposal (RFPs), EPA recommends that procuring agencies include as an evaluation factor for award, a criterion which rewards the offeror for the quantity of recovered material in building insulation products offered.

(c) The recommendations in paragraphs (a) and (b) of this section, as well as any other substantially equivalent preference program that an agency may adopt, are subject to the following limitations listed in section 6002(c)(1) of RCRA:

(1) Unsatisfactory level of competition;

(2) Unavailability within a reasonable period of time;

(3) Inability to meet the performance standards in the applicable specifications;

(4) Unavailability at a reasonable price.

(d) Procuring agencies must examine their procurement policies and procedures (exclusive of published regulations) and eliminate those which would inhibit or preclude the purchase of building insulation products containing recovered materials.

§ 248.22 Promotion program.

EPA recommends that procuring agencies use the following methods, at a minimum, to promote their preference programs:

(a) Place a statement in procurement solicitations, in the *Commerce Business Daily*, or in similar publications describing the preference program.

(b) Describe the preference program in solicitations for or which include building insulation.

(c) Discuss the preference program at bidders' conferences.

(d) Inform industry trade associations about the preference program.

(e) Publicize preferences for building insulation products made with recovered materials in all product-related information services and publications (e.g., Department of Housing and Urban Development publications and product-related services developed in compliance with section 521 of the National Housing Act, such as: National Building Codes, Bulletins, Materials Releases, Engineering Bulletins, and Use of Materials Information).

(f) Issue press releases describing the affirmative procurement program to recycling industry, architectural, and building trade publications.

§ 248.23 Estimates, certification, and verification.

Each procuring agency must develop estimation, certification and verification procedures:

(a) When a vendor supplies a building insulation product, the contracting officer must require the vendor to estimate the total percentage of recovered material contained in that insulation product. EPA recommends that procuring agencies maintain records of these estimates for three years by type of product, quantity purchased, and price paid.

(b)(1) When a procurement solicitation requires a minimum recovered materials content, contracting officers must require that contractors certify, prior to delivery or installation, that the building insulation products supplied under the contract meet or exceed the minimum content standard set forth in the solicitation.

(2) When using the case-by-case approach, contracting officers must require contractors to certify, prior to delivery or installation, that the building insulation products supplied meet or exceed the minimum percentage of recovered materials offered by the contractor in response to the solicitation.

(c)(1) EPA recommends that procuring agencies develop verification procedures for certifications and estimates of recovered materials content in building insulation products that require access only to manufacturers' records of recovered materials and comparable virgin materials used in each batch. Verification need not include review of records of other ingredients, which could include confidential business information.

(2) EPA recommends that the average of recovered materials used in a specific insulation product over a one-month period be used, if necessary, for verification of estimates of recovered materials content actually utilized in insulation products supplied to a procuring agency.

(3) EPA recommends that procuring agencies encourage their contractors to obtain the percentage of recovered material content, by batch number, from the manufacturer on a routine basis.

§ 248.24 Annual review and monitoring.

(a) Each procuring agency must conduct an annual review and monitoring of the effectiveness of its affirmative procurement program.

(b) EPA recommends that the annual review include the following items:

(1) An estimate of the quantity of building insulation with recovered material content purchased and the total quantity of building insulation products purchased.

(2) An assessment of the effectiveness of the promotion program.

(3) An assessment of any remaining barriers to purchase of insulation with recovered content to determine whether they are internal (e.g., resistance to use) or external (e.g., unavailability).

(4) A review of the range of estimates and certifications of recovered materials content in building insulation products provided by vendors during the year to determine whether minimum content standards should be raised or lowered, or whether a change from the case-by-case approach to the minimum content standard approach is necessary.

(5) A program to gather statistics. Procuring agencies should monitor their procurements to provide data on the following:

(i) The percentages of recovered materials content in the products procured or offered;

(ii) Comparative price information on competitive procurements;

(iii) The quantity of each item procured over a fiscal year;

(iv) The availability of the insulation products to procuring agencies;

(v) Type of performance tests conducted, together with the type of building insulation product containing recovered materials content that failed the tests, the percentages of total virgin products and products containing recovered materials content supplied that failed each test, and the nature of the failure;

(vi) Agency experience with the performance of the procured products.

(c) Procuring agencies should prepare a report on their annual review and monitoring of the effectiveness of their procurement programs and make these reports available to the public. The reports should contain the following information:

(1) If the case-by-case approach or a substantially equivalent alternative is being used, a discussion of how the procuring agency's approach procures building insulation products containing recovered materials to the maximum extent practicable. The basis for this discussion should be a review of the data compiled on recovered materials content, price, availability, and performance, as well as a comparison of estimates and certifications provided by the vendors.

(2) If the minimum content standards approach is being used, a discussion of whether the minimum content standards in use should be raised, lowered, or remain constant for each item. The basis for this discussion should be a review of the data compiled on recovered materials content, price, availability, and performance, as well as a comparison of estimates and certifications provided by the vendors.

(3) Documentation of specification revisions made during the year.

§ 248.25 Implementation.

(a) Federal agencies were required to review and revise their specifications for procurement items by May 8, 1986.

(b) Procuring agencies are required to revise their specifications as set forth in § 248.10(b), and to establish affirmative procurement programs within one year of the date of publication of this guideline as a final rule.

(c) Procuring agencies must begin procurement of building insulation products, in compliance with RCRA Section 6002, one year from the date of publication of this guideline as a final rule.

PART 249—GUIDELINE FOR FEDERAL PROCUREMENT OF CEMENT AND CONCRETE CONTAINING FLY ASH

Subpart A—Purpose, Applicability, and Definitions

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249.03 Applicability.
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AUTHORITY: 42 U.S.C. 6962.

SOURCE: 48 FR 4249, Jan. 28, 1983, unless otherwise noted.

Subpart A—Purpose, Applicability and Definitions

§ 249.01 Purpose.

(a) The purpose of the guideline is to assist procuring agencies in the procurement of cement and concrete which contain fly ash, in accordance with section 6002(e) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended ("RCRA" or "Act") (42 U.S.C. 6962).

(b) This guideline contains recommendations for implementing section 6002 requirements, including revision of specifications, purchasing, phasing-in of requirements, and certification procedures. The Agency believes its recommendations provide a flexible approach to meeting the statutory requirements, while still maintaining the intent of RCRA. The Agency is of the opinion that adherence to the guideline constitutes compliance with the statute.

§ 249.02 Designation.

Cement and concrete, including concrete products such as pipe and block, containing fly ash is hereby designated by EPA as a product area for which affirmative procurement actions are required on the part of procuring agencies, under the requirements of section 6002 of RCRA.

§ 249.03 Applicability.

(a) This guideline applies to all procuring agencies and to all procurement actions involving cement or concrete where the procuring agency purchases, in total, $10,000 or more worth of cement or concrete during the course of a fiscal year, or where the quantity of such items purchased during the preceding fiscal year was $10,000 or more. EPA leaves the precise method of calculating or estimating the applicability of this provision to specific construction activities of a procuring agency at the discretion of that agency.

(b) Procurement actions covered by this guideline include all purchases for cement or concrete made directly by a procuring agency or by any person directly in support of work being per-

ormed for a procuring agency, as in
he case of general construction con-
ractors and/or subcontractors.

(c) Such procurement actions also
nclude any purchases of cement or
oncrete made "indirectly" by a pro-
uring agency, as in the case of pur-
hases resulting from grants, loans,
unds, and similar forms of disburse-
ents of monies which the procuring
gency intended to be used for con-
truction.

(d) The guideline does not apply to
urchases of cement and concrete
hich are unrelated to or incidental to
ederal funding, i.e., not the direct
esult of a contract, grant, loan, funds
isbursement, or agreement with a
rocuring agency.

249.04 Definitions.

As used in this guideline:

(a) "Act" or "RCRA" means the
olid Waste Disposal Act, as amended
y the Resource Conservation and Re-
covery Act of 1976, as amended, 42
U.S.C. 6901 et seq.

(b) "Construction" means the erec-
ion or building of new structures, or
he replacement, expansion, remodel-
ng, alteration, modernization, or ex-
ension of existing structures. It in-
cludes the engineering and architec-
tural surveys, designs, plans, working
drawings, specifications, and other ac-
tions necessary to complete the
project.

(c) "Contract specifications" means the set of specifications prepared for an individual construction project, which contains design, performance, and material requirements for that project.

(d) "Federal agency" means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office (Pub. L. 94-580, 90 Stat. 2799, 42 U.S.C. 6903).

(e) "Fly ash" means the component of coal which results from the combustion of coal, and is the finely divided mineral residue which is typically collected from boiler stack gases by electrostatic precipitator or mechanical collection devices.

(f) "Guide specification" means a general specification—often referred to as a design standard or design guideline—which is a model standard and is suggested or required for use in the design of all of the construction projects of an agency.

(g) "Implementation" means putting a plan into practice by carrying out planned activities, or ensuring that these activities are carried out.

(h) "Material specification" means a specification that stipulates the use of certain materials to meet the necessary performance requirements.

(i) "Person" means an individual, trust, firm, joint stock company, Federal agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

(j) "Procurement item" means any device, goods, substance, material, product, or other item whether real or personal property which is the subject of any purchase, barter, or other exchange made to procure such item (Pub. L. 94-580, 90 Stat. 2800, 42 U.S.C. 6903).

(k) "Procuring agency" means any Federal agency, or any State agency or agency of a political subdivision of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract (Pub. L. 94-580, 90 Stat. 2800, 42 U.S.C. 6903).

(l) "Recovered material" means waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process (Pub. L. 94-580, 90 Stat. 2800, 42 U.S.C. 6903, as amended by Pub. L. 96-482).

(m) "Specification" means a clear and accurate description of the technical requirement for materials, products, or services, which specifies the minimum requirement for quality and construction of materials and equipment necessary for an acceptable product. In general, specifications are in the form of written descriptions, drawings, prints, commercial designations, industry standards, and other descriptive references.

Subpart B—Specifications

§ 249.10 Recommendations for guide specifications.

(a) Each procuring agency should assure that its guide specifications do not unfairly discriminate against the use of fly ash in cement and concrete. Each procuring agency should:

(1) Revise specifications, standards, or procedures which currently require that cement and concrete contain virgin materials to eliminate this restriction.

(2) Revise specifications, standards, or procedures which prohibit using recovered materials (particularly fly ash) in cement and concrete to eliminate this restriction.

(b) Guide specifications should require that contract specifications for individual construction projects or products allow for the use of fly ash, unless fly ash use is technically inappropriate for a particular construction application.

(c) Referenced specifications which are maintained by national organizations, such as the American Association of State Highway and Transportation Officials (AASHTO), the American Concrete Institute (ACI), and the American Society for Testing and Materials (ASTM) should be reviewed and modified, if necessary, to remove any discrimination against the use of fly ash in cement and concrete.

(d) Guide specifications should be revised, if necessary, within six months after the effective date of this guideline, to incorporate the recommendations of paragraphs (a) through (c) of this section.

§ 249.11 Recommendations for contract specifications.

(a) Each procuring agency which prepares or reviews "contract" specifications for individual construction projects should revise those specifications to allow the use of cement and concrete which contain fly ash as an optional or alternate material for the project in accordance with § 249.20, except as noted in paragraph (b) of this section.

(b)(1) Notwithstanding the above, procuring agencies should not revise contract specifications to allow the use of fly ash if it can be determined that, for a particular project or application, reasonable performance requirements for the cement or concrete will not be met, or that the use of fly ash would be inappropriate for technical reasons.

(2) The determination under this paragraph should be documented by the procuring agency, design engineer/architect, or other responsible person, based on specific technical performance information. Legitimate documentation of technical infeasibility for fly ash can be for certain classes of applications, rather than on a job-by-job basis. Agencies should reference such documentation in individual contract specifications, to avoid extensive repetition of previously documented points. However, procuring agencies should be prepared to submit such documentation to scrutiny by interested persons, and should have a review process available in the event of disagreements.

(c) Each procuring agency should assure that contract specifications reflect the provisions of paragraphs (a) and (b) of this section by reviewing the contract specifications for any individual construction project before awarding the contract. Procuring agencies are reminded that the statutory requirements apply to projects which are contracted for directly, as well as those projects directly performed under the provisions of grants, loans, funds or similar forms of disbursement.

(d) All contract specifications issued after one year from the effective date of this guideline should meet the provisions of this section.

§ 249.12 Recommendations for material specifications.

(a) Each procuring agency should make maximum use of existing voluntary consensus standards and Federal material specifications for cement and concrete which contain fly ash. These are:

(1) Cement.

(i) ANSI/ASTM C595—"Standard Specification for Blended Hydraulic Cements."

(ii) Fed. Spec. SS-C-1960/4B—"Cement, Hydraulic, Blended."

(iii) ANSI/ASTM C150—"Standard Specification for Portland Cement" and Fed. Spec. SS-C-1960/Gen. are appropriate specifications when fly ash is used as a raw material in the production of cement.

(2) Concrete.

(i) ANSI/ASTM C618—"Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete."

(ii) Fed. Spec. SS-C-1960/5A—"Pozzolan, For Use in Portland Cement Concrete."

(iii) ANSI/ASTM C311—"Standard Methods of Sampling and Testing Fly Ash and Natural Pozzolans for use as a Mineral Admixture in Portland Cement Concrete."

(b) Only fly ash which, as a minimum, meets ASTM standards should be used, unless a procuring agency has developed sufficient expertise to use non-specification fly ash for particular applications.

§ 249.13 Recommendations for fly ash content and mix design.

(a) This guideline does not specify a minimum or maximum level of fly ash content for any uses, due to variations in fly ash, cement, strength requirements, costs, construction practices, etc. However, replacement rates of fly ash for cement in the production of blended cement generally do not exceed 20% to 30%, although fly ash blended cements may range from 0%-40% fly ash by weight, according to ASTM C595, for cement Types IP and I(PM). Fifteen percent is a more accepted rate when fly ash is used as a partial cement replacement as an admixture in concrete.

(b) Information on fly ash and concrete mix design is contained in the "References" section of this guideline. These sources should be consulted in the design and evaluation of the proper mix ratio for a specific project. In general, the concrete mix is adjusted by adding fly ash, while decreasing cement, water, and fine aggregate. The fly ash should be checked for compliance with applicable ASTM standards/Federal specifications, and trial mixes should be made to verify compliance of such mixes with specified quality parameters as is typically done for portland cement concrete.

(c) Concrete mix design specifications which specify minimum cement content or maximum water: Cement ratios could potentially unfairly discriminate against the use of fly ash. Such specifications should be changed in order to allow the partial substitution of fly ash for cement in the concrete mixture, unless technically inappropriate. Minumum cement contents and maximum water: Cement ratios may be retained, as long as they reflect the cementitious characteristics which fly ash can impart to a concrete mixture, e.g., by considering portland cement *plus* fly ash as the total cementitious component.

§ 249.14 Recommendations for performance standards.

(a) Each procuring agency should review and, if necessary, revise performance standards relating to cement or concrete construction projects to insure that they do not arbitrarily restrict the use of fly ash, either intentionally or inadvertently, unless this restriction is justified on a case-by-case basis, as allowed for in § 249.11(b).

Subpart C—Purchasing

§ 249.20 Recommendations for bidding approach.

(a) EPA recommends that a procuring agency specifically include provisions in all construction contracts to allow for the use, as an optional or alternate material, of cement or concrete which contains fly ash, except as provided for in § 249.11(b).

(b) Agencies should adopt appropriate bidding approaches to comply with paragraph (a) of this section. While EPA allows flexibility to procuring agencies in this regard, alternatives which should be considered in adhering to paragraph (a) of this section, include:

(1)(i) Revision of contract or guide specifications, as discussed in §§ 249.10

and 249.11, such that portland cement or concrete and cement or concrete containing fly ash are both considered acceptable materials for the particular construction job. Such an approach allows a contractor to secure award of a contract based on normal bid evaluation procedures. At a later time, the contractor can exercise the option to use or not to use fly ash, subject to normal quality assurance procedures and review and approval of mix designs, materials, etc. by the procuring agency/project engineer.

(ii) This bidding approach may be most useful in procurements where cement or concrete is not the sole material purchased, e.g., as in the case of a solicitation covering all phases of construction of an office building. Under this approach, procuring agencies should put offerors on notice that a specification change has taken place and that they should actively seek out suppliers of cement or concrete containing fly ash.

(2)(i) Solicitation of alternate bids, allowing separate price quotations for either portland cement concrete or concrete containing fly ash. Under this approach, award is made to the successful bidder (typically lowest priced responsible offeror) for either one or the other of the materials. However, the successful bidder can later revise the selection of materials planned for use, for example, due to technical reasons or material availability, subject to approval of the procuring agency/project engineer.

(ii) This bidding approach may be most useful in procurements where the procuring agency is purchasing cement or concrete separately from other phases of a construction project, thus enabling the agency to evaluate bids for cement or concrete individually and to deal directly with potential suppliers.

(c) Regardless of the method of solicitation used, award should be made in accordance with an agency's customary award procedures, typically to the lowest priced responsible bidder, regardless of whether fly ash is used. In the event that two or more low bids are received which offer different levels of fly ash content, award should be made in accordance with an agency's customary award procedures, typically to the lowest priced responsible offeror. In the case of identical low bids, award should be made to the offeror with the higher level of fly ash content, all other factors being equal.

§ 249.21 Recommendations for reasonable price.

(a) Procuring agencies should use general procedures, such as those contained in the Federal Procurement Regulations, in determining whether the prices offered are reasonable. This determination should consider the objectives of section 6002 of RCRA.

(b) Techniques of price analysis (not cost analysis) should be used, as appropriate. (Price analysis is the process of examining and evaluating a prospective price without evaluating the separate cost elements and proposed profit of the individual prospective supplier.) Price analysis may be done in various ways, including:

(1) Comparison of the price quotations submitted.

(2) Comparison of prior quotations and contract prices with current quotations for the same or similar end items, making appropriate allowances for any differences in quantities, delivery time, inflation, etc.

(3) Comparison of prices set forth in published price lists or catalogs.

Cost analysis may be necessary where there is no history or published information upon which to base price analysis.

§ 249.22 Recommendations for reasonable competition.

(a) Procuring agencies can assume that there is reasonable competition if there is adequate price competition.

(b) Adequate price competition is usually presumed to exist if:

(1) At least two responsible offerors,

(2) Who can satisfy the purchaser's (e.g., the Government's) requirements,

(3) Independently compete for a contract to be awarded,

(4) By submitting priced offers responsive to the expressed requirements of a solicitation.

In addition, the reasonableness of prices is a factor which should be evaluated in accordance with § 249.21.

249.23 Reasonable availability.

Procuring agencies should consider ement or concrete which contains fly sh to be reasonably available if it can e delivered in time to successfully erform the job, or if there are no unsual or unnecessary delays expected n its delivery compared to those for ortland cement or concrete.

249.24 Recommendations for time-phasing.

In order to minimize any adverse efects on the marketplace or on the rocuring agency in implementing this uideline, the Agency recommends hat not later than the beginning of he second year after the effective ate of the guideline, all contracts should solicit bids which specifically llow for the use of fly ash, in accordance with the provisions of § 249.11 and §§ 249.20 through 249.23.

Subpart D—Certification

249.30 Recommendations for measurement.

(a) The procuring agency should require the supplier to:

(1) Certify that the percentage of fly ash to be included in the cement or concrete supplied under the contract is in accordance with the amount required by specifications referenced in the solicitation or contract.

(2) Estimate the percentage of fly ash which will be used in a particular mix design, as well as the quantity of fly ash to be supplied under the contract.

(b) Measurement of fly ash content should be made in accordance with standard industry practice, normally on a weight basis, and stated as a percentage of the weight of total cementitious material: (fly ash weight/ (fly ash weight + cement weight)) = %. This will often be a reflection of either a typical cubic yard of concrete or ton of cement.

§ 249.31 Recommendations for documentation.

(a) The supplier's certification of fly ash content should not require separate reporting forms, but should make use of existing mechanisms, such as a statement contained in a signed bid document or a mix design proposal.

(b) In cases where the purchase of cement or concrete is not under the direct control of the procuring agency, as in the case of certain indirect purchases, the fly ash content of the cement or concrete purchased and quantity of fly ash used should be made available to the procuring agency.

§ 249.32 Quality control.

(a) Nothing in this guideline should be construed to relieve the contractor of responsibility for providing a satisfactory product. The certification procedures discussed in §§ 249.30 and 249.31 are intended to satisfy the certification requirements of section 6002, and are entirely separate in purpose and format from standard industry quality control and quality assurance procedures. Cement and concrete suppliers are already responsible both for the quality of the ingredients of their product and for meeting appropriate performance requirements, and will continue to be under this guideline. This guideline does not attempt to shift normal industry procedures for assigning responsibility and liability.

(b)(1) Procuring agencies should expect suppliers of blended cement, fly ash, and concrete to demonstrate (through reasonable testing programs or previous experience) the performance and reliability of their product and the adequacy of their quality control programs. However, procuring agencies should not subject cement and concrete containing fly ash to any unreasonable testing requirements.

(2) In accordance with standard industry practice, fly ash suppliers should be required to provide to users a statement of the key characteristics of fly ash supplied. These characteristics include its chemical constituents, loss on ignition (LOI), and fineness of the matter. These characteristics may be stated in appropriate ranges. Other characteristics should be requested as needed by the procuring agency.

(c) Agencies desiring a testing or quality assurance program for cements, blended cements, or fly ash should contact the U.S. Army Engineer Waterways Experiment Station, P.O. Box 631, Vicksburg, Mississippi 39180.

§ 249.33 Date recommendations.

Certification of fly ash content should occur at the time of purchase of cement and concrete in accordance with the phasing-in recommendations in § 249.24 and §§ 249.30 through 249.32.

PART 250—GUIDELINE FOR FEDERAL PROCUREMENT OF PAPER AND PAPER PRODUCTS CONTAINING RECOVERED MATERIALS

Subpart A—General

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250.10 Introduction.
250.11 Elimination of recovered materials exclusion.
250.12 Requirement of recovered materials content.
250.13 Exclusion of products containing recovered materials that do not meet reasonable performance standards.
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Subpart C—Affirmative Procurement Program

250.20 General.
250.21 Recovered materials preference program.
250.22 Promotion program.
250.33 Estimates, certification, and verification.
250.24 Annual review and monitoring.
250.25 Implementation.

AUTHORITY: 42 U.S.C. 6912(a) and 6962.

SOURCE: 53 FR 23561, June 22, 1988, unless otherwise noted.

Subpart A—General

§ 250.1 Purpose.

(a) The purpose of this guideline is to assist procuring agencies in complying with the requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended, as that section applies to paper and paper products designated in § 250.2 of this part.

(b) This guideline contains recommendations for implementing the requirements of section 6002 of RCRA, including the revision of specifications and the establishment of an affirmative program for the procurement of paper and paper products containing recovered materials. The guideline also makes recommendations concerning solicitations for bids and estimation, certification, and verification procedures. In addition, the guideline sets dates for implementation.

(c) The Agency believes that adherence to the practices recommended in the guideline constitutes compliance with section 6002 of RCRA, as it relates to the purchase of paper and paper products containing recovered materials.

§ 250.2 Designation.

Under section 6002(e)(1) of RCRA, paper and paper products are designated as items which can be produced with recovered materials and whose procurement by procuring agencies will carry out the objectives of section 6002 of RCRA. As used in this guideline, the term "paper and paper products" does not include building and construction paper grades.

§ 250.3 Applicability.

(a) This guideline applies to all paper and paper products purchased with appropriated Federal funds.

(b)(1) This guideline applies to all procuring agencies and to all procurement actions involving paper and paper products where the procuring agency purchases $10,000 or more worth of one of these items during the course of a fiscal year, or where the cost of such items or of functionally equivalent items purchased during the preceding fiscal year was $10,000 or more.

(2) This guideline applies to Federal agencies, to State or local agencies using appropriated Federal funds, and to persons contracting with any such agencies with respect to work performed under such contracts. Federal

gencies should note that the require- ents of RCRA section 6002 apply to hem whether or not appropriated ederal funds are used for procure- ent of items designated by EPA.

(3) The $10,000 threshold applies to rocuring agencies as a whole rather han to agency subgroups such as re- ional offices or subagencies.

(c) For purposes of the $10,000 hreshold, each item listed in each cat- gory below is considered to be func- ionally equivalent to every other item n the category:

(1) All grades and types of xero- raphic/copy paper;

(2) Newsprint;

(3) All grades and types of printing nd writing paper;

(4) Corrugated and fiberboard boxes;

(5) Folding boxboard and cartons;

(6) Stationery, office papers (e.g., emo pads, scratch pads), envelopes, nd manifold business forms including computer paper;

(7) Toilet tissue, paper towels, facial tissue, paper napkins, doilies, and industrial wipers; and

(8) Brown papers and coarse papers.

(d) Procurement actions covered by this guideline include:

(1) All purchases of paper and paper products made directly by a procuring agency or by any person contracting with any such agency with respect to work being performed under such contract, for example, contract printing; and,

(2) Indirect purchases of paper and paper products made by a procuring agency, such as purchasing resulting from Federal grants, loans, and similar forms of disbursements of monies that the procuring agency intended to be used for the procurement of paper or paper products.

(e) Purchases of paper and paper products that are unrelated or incidental to Federal funding, i.e., not the direct result of a Federal contract, grant, loan, funds disbursement, or agreement with a procuring agency, are not covered by this guideline.

§ 250.4 Definitions.

As used in this guideline, the following terms shall have the meaning indicated below:

(a) "Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 *et seq.;*

(b) "Bleached papers" means paper made of pulp that has been treated with bleaching agents;

(c) "Bond paper" means a generic category of paper used in a variety of end use applications such as forms (see "form bond"), offset printing, copy paper, stationery, etc. In the paper industry, the term was originally very specific but is now very general.

(d) "Book paper" means a generic category of papers produced in a variety of forms, weights, and finishes for use in books and other graphic arts applications, and related grades such as tablet, envelope, and converting papers;

(e) "Brown papers" means papers usually made from unbleached kraft pulp and used for bags, sacks, wrapping paper, and so forth;

(f) "Coarse papers" means papers used for industrial purposes, as distinguished from those used for cultural or sanitary purposes;

(g) "Computer paper" means a type of paper used in manifold business forms produced in rolls and/or fan folded. It is used with computers and word processors to print out data, information, letters, advertising, etc. It is commonly called computer printout;

(h) "Corrugated boxes" means boxes made of corrugated paperboard, which, in turn, is made from a fluted corrugating medium pasted to two flat sheets of paperboard (linerboard); multiple layers may be used;

(i) "Cotton fiber content papers" means paper that contains a minimum of 25 percent and up to 100 percent cellulose fibers derived from lint cotton, cotton linters, and cotton or linen cloth cuttings. It is also known as rag content paper or rag paper. It is used for stationery, currency, ledgers, wedding invitations, maps, and other specialty papers;

(j) "Cover stock" or "Cover paper" means a heavyweight paper commonly used for covers, books, brochures, pamphlets, and the like;

(k) "Doilies" means paper place mats used on food service trays in hospitals and other institutions;

(l) "Duplicator paper" means writing papers used for masters or copy sheets in the aniline ink or hectograph process of reproduction (commonly called spirit machines);

(m) "Envelopes" means brown, manila, padded, or other mailing envelopes not included with "stationery;"

(n) "Facial tissue" means a class of soft absorbent papers in the sanitary tissue group;

(o) "Federal agency" means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including a government corporation, and the Government Printing Office;

(p) "Fiber or fiberboard boxes" means boxes made from containerboard, either solid fiber or corrugated paperboard (general term); or boxes made from solid paperboard of the same material throughout (specific term);

(q) "Folding boxboard" means a paperboard suitable for the manufacture of folding cartons;

(r) "Form bond" means a lightweight commodity paper designed primarily for business forms including computer printout and carbonless paper forms. (See manifold business forms);

(s) "Industrial wipers" means paper towels especially made for industrial cleaning and wiping;

(t) "Ledger paper" means a type of paper generally used in a broad variety of recordkeeping type applications such as in accounting machines.

(u) "Manifold business forms" means a type of product manufactured by business forms manufacturers that is commonly produced as marginally punched continuous forms in small rolls or fan folded sets with or without carbon paper interleaving. It has a wide variety of uses such as invoices, purchase orders, office memoranda, shipping orders, and computer printout;

(v) "Mill broke" means any paper waste generated in a paper mill prior to completion of the papermaking process. It is usually returned directly to the pulping process. Mill broke is excluded from the definition of "recovered materials;"

(w) "Mimeo paper" means a grade of writing paper used for making copies on stencil duplicating machines;

(x) "Newsprint" means paper of the type generally used in the publication of newspapers or special publications like the *Congressional Record*. It is made primarily from mechanical wood pulps combined with some chemical wood pulp;

(y) "Office papers" means note pads, loose-leaf fillers, tablets, and other papers commonly used in offices, but not defined elsewhere;

(z) "Offset printing paper" means an uncoated or coated paper designed for offset lithography;

(aa) "Paper" means one of two broad subdivisions of paper products, the other being paperboard. Paper is generally lighter in basis weight, thinner, and more flexible than paperboard. Sheets 0.012 inch or less in thickness are generally classified as paper. Its primary uses are for printing, writing, wrapping, and sanitary purposes. However, in this guideline, the term paper is also used as a generic term that includes both paper and paperboard. It includes the following types of papers: bleached paper, bond paper, book paper, brown paper, coarse paper, computer paper, cotton fiber content paper, cover stock or cover paper, duplicator paper, form bond, ledger paper, manifold business forms, mimeo paper, newsprint, office papers, offset printing paper, printing paper, stationery, tabulating paper, unbleached papers, writing paper, and xerographic/copy paper.

(bb) "Paper napkins" means special tissues, white or colored, plain or printed, usually folded, and made in a variety of sizes for use during meals or with beverages;

(cc) "Paper product" means any item manufactured from paper or paperboard. The term "paper product" is used in this guideline to distinguish such items as boxes, doilies, and paper towels from printing and writing papers. It includes the following types of products: corrugated boxes, doilies, envelopes, facial tissue, fiberboard boxes, folding boxboard, industrial wipers, paper napkins, paper towels, tabulating cards, and toilet tissue;

(dd) "Paper towels" means paper toweling in folded sheets, or in raw form, for use in drying or cleaning, or where quick absorption is required;

(ee) "Paperboard" means one of the two broad subdivisions of paper, the other being paper itself. Paperboard is usually heavier in basis weight and thicker than paper. Sheets 0.012 inch or more in thickness are generally classified as paperboard. The broad classes of paperboard are containerboard, which is used for corrugated boxes; boxboard, which is principally used to make cartons; and all other paperboard;

(ff) "Person" means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

(gg) "Practicable" means capable of being used consistent with: performance in accordance with applicable specifications, availability at a reasonable price, availability within a reasonable period of time, and maintenance of a satisfactory level of competition;

(hh) "Printing paper" means paper designed for printing, other than newsprint, such as offset and book paper;

(ii) "Procurement item" means any device, good, substance, material, product, or other item, whether real or personal property, that is the subject of any purchase, barter, or other exchange made to procure such item;

(jj) "Procuring agency" means any Federal agency, or any State agency or agency of a political subdivision of a State that is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract;

(kk) "Recovered materials" means waste material and by-products that have been recovered or diverted from solid waste, but such term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process. In the case of paper and paper products, the term "recovered materials" includes:

(1) Postconsumer materials such as:

(i) Paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end usage as a consumer item, including: Used corrugated boxes, old newspapers, old magazines, mixed waste paper, tabulating cards, and used cordage, and,

(ii) All paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste; and

(2) Manufacturing, forest residues, and other wastes such as:

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including envelope cuttings, bindery trimmings, and other paper and paperboard waste, resulting from printing, cutting, forming, and other converting operations; bag, box and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others;

(iii) Fibrous by-products of harvesting, manufacturing, extractive, or wood-cutting processes, flax, straw, linters, bagasse, slash, and other forest residues;

(iv) Wastes generated by the conversion of goods made from fibrous material (e.g., waste rope from cordage manufacture, textile mill waste, and cuttings); and

(v) Fibers recovered from waste water that otherwise would enter the waste stream;

(ll) "Recyclable paper" means any paper separated at its point of discard or from the solid waste stream for utilization as a raw material in the manufacture of a new product. It is often called "waste paper" or "paper stock." Not all paper in the waste stream is recyclable; if may be heavily contaminated or otherwise unusable.

(mm) "Specification" means a detailed description of the technical requirements for materials, products, or services that specifies the minimum requirement for quality and construction of materials and equipment necessary for an acceptable product. Specifications are generally in the form of a written description, drawings, prints, commercial designations, industry standards, and other descriptive references;

(nn) "State" means any of the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands;

(oo) "Stationery" means writing paper suitable for pen and ink, pencil, or typing. Matching envelopes are included in this definition.

(pp) "Tabulating cards" means cards used in automatic tabulating machines; "Tabulating paper" means paper used in tabulating forms for use on automatic data processing equipment;

(qq) "Toilet tissue" means a sanitary tissue paper. The principal characteristics are softness, absorbency, cleanliness, and adequate strength (considering easy disposability). It is marketed in rolls of varying sizes or in interleaved packages;

(rr) "Unbleached papers" means papers made of pulp that have not been treated with bleaching agents;

(ss) "Waste paper" means any of the following "recovered materials":

(1) Postconsumer materials such as:

(i) Paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end usage as a consumer item, including: Used corrugated boxes, old newspapers, old magazines, mixed waste paper, tabulating cards, and used cordage, and

(ii) All paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste; and

(2) Manufacturing, forest residues, and other wastes such as:

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: Envelope cuttings, bindery trimmings, and other paper and paperboard waste, resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and;

(ii) Finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others;

(tt) "Writing paper" means a paper suitable for pen and ink, pencil, typewriter or printing;

(uu) "Xerographic/copy paper" means any grade of paper suitable for copying by the xerographic process (a dry method of reproduction).

Subpart B—Revisions and Additions to Paper and Paper Product Specifications

§ 250.10 Introduction.

This subpart offers guidance to Federal agencies that draft or review specifications for paper and paper products. As used in this subpart, the term "postconsumer recovered materials" refers to waste paper in the case of printing and writing papers and to recovered materials in the case of cotton fiber papers.

§ 250.11 Elimination of recovered materials exclusion.

By May 8, 1986, each Federal agency was required to assure that its specifications do not unfairly discriminate against the use of postconsumer recovered materials. At a minimum, except as provided in § 250.13 of this part, each Federal agency was required to:

(a) Revise those specifications, standards, and procedures that require that paper and paper products contain only virgin materials to eliminate this restriction; and

(b) Revise those specifications, standards, and procedures that prohibit using postconsumer recovered materials in paper and paper products to eliminate this restriction.

§ 250.12 Requirement of recovered materials content.

(a) Within one year of publication of this revised guideline, paper and paper product specifications must require the use of postconsumer recovered materials to the maximum extent possible without jeopardizing the intended end use of the paper or paper product.

(b) Specifications that are unnecessarily stringent for a particular end use and that bear no relation to function, such as brightness and whiteness for copy paper, should be revised in order to allow for a higher use of postconsumer recovered materials. Specifications that bear no relation to function should be revised according to the agency's established review procedure. In determining the relationship to function of existing specifications, Federal agencies should make maximum use of existing voluntary standards and research by organizations such as the American Society for Testing and Materials' Committees D6, D10, and F5; the Technical Association of the Pulp and Paper Industry; and the American Institute of Paper Chemistry.

§ 250.13 Exclusion of products containing recovered materials that do not meet reasonable performance standards.

(a) Notwithstanding the requirements of §§ 250.11 and 250.12 of this part, Federal agencies need not revise specifications to allow or require the use of postconsumer recovered materials if it can be determined that for technical reasons, for a particular end use, a product containing such materials will not meet reasonable performance standards.

(b) Any determination under this section should be documented by the drafting and reviewing agency and be based on technical performance information related to a specific item, not a grade of paper or type of product. Agencies should reference such documentation in subsequent solicitations for the specific item in order to avoid repetition of previously documented points.

§ 250.14 New specifications.

When paper or a paper product containing postconsumer recovered materials is produced in types and grades not previously available, specifications should be revised to allow use of such type or grade, or new specifications should be developed for such type or grade. EPA recommends that procuring agencies monitor new developments and use them to increase the use of postconsumer recovered materials as appropriate.

Subpart C—Affirmative Procurement Program

§ 250.20 General.

(a) Within one year after the date of publication of this revised guideline, procuring agencies which procure paper and paper products must establish an affirmative procurement program for such items. The program must meet the requirements of section 6002(i) of RCRA, including the establishment of a preference program; a promotion program; procedures for obtaining estimates and certification of postconsumer recovered materials content and for verifying the estimates and certifications; and an annual review and monitoring program. This subpart provides recommendations for implementing section 6002(i).

(b) As used in this subpart, the term "postconsumer recovered materials" refers to waste paper in the case of printing and writing grades and to recovered materials in the case of cotton fiber papers.

§ 250.21 Recovered materials preference program.

(a)(1) EPA recommends that procuring agencies establish minimum recovered materials content standards that assure that the postconsumer recovered materials content required is the maximum available without jeopardizing the intended end use of the item or violating the limitations of Section 6002(c)(1) (A) through (C) of the Act.

(2) EPA recommends that procuring agencies set their minimum content levels at the highest levels that meet the statutory requirements but no lower than the levels shown in Table 1.

TABLE 1: EPA RECOMMENDED MINIMUM CONTENT STANDARDS OF SELECTED PAPERS AND PAPER PRODUCTS

	Minimum percentage of recovered materials	Minimum percentage of postconsumer recovered materials	Minimum percentage of waste paper [1]
Newsprint		40	
High grade bleached printing and writing papers:			
Offset printing			50
Mimeo and duplicator paper			50
Writing (stationery)			50
Office paper (e.g., note pads)			50
Paper for high-speed copiers			(2)
Envelopes			50
Form bond including computer paper and carbonless			(2)
Book papers			50
Bond papers			50
Ledger			50
Cover stock			50
Cotton fiber papers	25		
Tissue products:			
Toilet tissue		20	
Paper towels		40	
Paper napkins		30	
Facial tissue		5	
Doilies		40	
Industrial wipers		0	
Unbleached packaging:			
Corrugated boxes		35	
Fiber boxes		35	
Brown papers (e.g., bags)		5	
Recycled paperboard:			
Recycled paperboard products including folding cartons		80	
Pad backing		90	

[1] Waste paper is defined in Section 250.4 and refers to specified postconsumer and other recovered materials.
[2] EPA found insufficient production of these papers with recycled content to assure adequate competition.

(3) Minimum content standards should be reviewed annually based on procurement experiences, including data compiled on postconsumer recovered materials content, as recommended in § 250.23(c) of this part.

(b) The recommendations in paragraphs (a) (1) and (2) of this section, as well as any other affirmative procurement program that an agency may adopt, are subject to the following limitations provided in section 6002(c)(1) of RCRA:

(1) Maintenance of a satisfactory level of competition;

(2) Availability within a reasonable period of time;

(3) Ability to meet the performance specifications in the invitation for bids;

(4) Availability at a reasonable price.

(c) Procuring agencies should make determinations regarding competition and availability in accordance with the Federal Acquisition Regulation (FAR), 48 CFR Ch. 1 *et seq.*

§ 250.22 Promotion program.

EPA recommends that procuring agencies consider all possible promotional methods including the following:

(a) A special notation prominently displayed in any paper or paper product procurement solicitation or invitation to bid.

(b) A statement in each paper specification defining "postconsumer recovered materials," "waste paper," or "recovered materials," as applicable, as they are defined in § 250.4 of this part.

(c) A brief statement in advertisements of bids describing the preference program. Such advertisements should be placed in the *Commerce Business Daily* and periodicals commonly read by vendors of paper and iper products containing postconmer recovered materials.

(d) Catalog listings of available prodcts (such as GSA's Office Supplies) dicating which paper or paper prodct contains postconsumer recovered aterials.

(e) Discussion of the preference proram at bidders' conferences or similar eetings of potential bidders.

(f) Announcements in recycling jourals, trade magazines, and procureent publications.

250.23 Estimates, certification, and verification.

(a) Agencies must require vendors to stimate the total percentage of postonsumer recovered materials in paper nd paper products supplied to them.

(b) Agencies must require vendors to ertify the minimum postconsumer reovered materials to be used in the erformance of a contract.

(c) There must be reasonable verifiation procedures for estimates and ertifications, e.g., the procuring gency may state in solicitations for ids that, in the case of a bidder's proest, all estimates and certifications vill be subject to audits of mill ecords.

(d) For each paper or paper product rocured, agencies should maintain he following records:

(1) The percentage of postconsumer ecovered materials in the products rocured or offered;

(2) Comparative price information n competitive procurements;

(3) The quantity of each item procured over a fiscal year;

(4) The availability of the paper and aper products to procuring agencies;

(5) Type of performance tests conducted, together with the categories of paper or paper products containing postconsumer recovered materials that failed the tests; the percentage of total virgin products and products containing postconsumer recovered materials, respectively, that failed each test; and the nature of the failure;

(6) Agency experience with the performance of the procured products.

§ 250.24 Annual review and monitoring.

(a) Each procuring agency must conduct an annual review and monitoring of the effectiveness of its affirmative procurement program.

(b) EPA recommends that the annual review include the following items:

(1) An estimate of the quantity of paper and paper products purchased containing postconsumer recovered materials and the total quantity of paper and paper products purchased.

(2) A review of the variation between estimates and certifications of postconsumer recovered materials content in paper and paper products purchased during the year. If the variations are significant, procuring agencies should determine whether minimum content standards can be introduced or raised without causing a long-term increase in price.

(c) Procuring agencies should prepare a report on their annual review and monitoring of the effectiveness of their procurement programs and make the report available to the public. The report should contain the following information:

(1) If the case-by-case approach is being used, a demonstration that they procure paper and paper products containing postconsumer recovered materials to the maximum extent practicable. The basis for this determination should be a review of the data compiled on recovered materials content, price, availability, and performance, as well as a comparison of estimates and certifications provided by the vendors.

(2) If the minimum content standards approach is being used, a determination of whether the minimum content standards in use should be raised, lowered, or remain constant for each item. The basis for these determinations should be a review of the data compiled on postconsumer recovered materials content, price, availability, and performance, as well as a comparison of estimates and certifications provided by the vendors.

(3) Documentation of specification revisions made during the year.

§ 250.25 Implementation.

(a) Procuring agencies must complete specification revisions in accordance with RCRA section 6002(d)(2) and development of affirmative procurement programs in accordance with RCRA section 6002(i) within one year from the date of publication of this revised guideline.

(b) Procuring agencies must begin procurement of paper and paper products containing postconsumer recovered materials in compliance with RCRA section 6002, one year from the date of publication of this revised guideline.

PART 252—GUIDELINE FOR FEDERAL PROCUREMENT OF LUBRICATING OILS CONTAINING RE-REFINED OIL

Subpart A—General

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252.1 Purpose.
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Subpart B—Specifications

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Subpart C—Affirmative Procurement Program

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252.23 Estimates, certification, and verification.
252.24 Annual review and monitoring.
252.25 Implementation.

AUTHORITY: 42 U.S.C. 6912(a) and 6962.

SOURCE: 53 FR 24715, June 30, 1988, unless otherwise noted.

Subpart A—General

§ 252.1 Purpose.

(a) The purpose of this guideline is to assist procuring agencies in complying with the requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA or the Act), as amended, 42 U.S.C. 6962, as that section applies to procurement of lubricating oils containing re-refined oil.

(b) This guideline contains recommendations for use in implementing the requirements of section 6002, including revision of specifications, purchasing activities, and procurement.

(c) The Agency believes that adherence to the recommendations in the guideline constitutes compliance with section 6002. However, procuring agencies may adopt other types of procurement programs consistent with section 6002.

§ 252.2 Designation.

EPA designates lubricating oils as items which are or can be produced with recovered materials (re-refined oil) and whose procurement by procuring agencies will carry out the objectives of section 6002 of RCRA. For purposes of this designation, "lubricating oils" means engine lubricating oils, hydraulic fluids, and gear oils, excluding marine and aviation oils.

§ 252.3 Applicability.

(a)(1) This guideline applies to all procuring agencies and to all procurement actions involving lubricating oils where the procuring agency purchases $10,000 or more worth of one of these items during the course of a fiscal year, or where the cost of such items or of functionally equivalent items purchased during the preceding fiscal year was $10,000 or more. For purposes of the $10,000 threshold, all lubricating oils are considered to be "functionally equivalent."

(2) This guideline applies to Federal agencies, to State or local agencies using appropriated Federal funds, and to persons contracting with any such agencies with respect to work performed under such contracts. Federal agencies should note that the requirements of RCRA section 6002 apply to them whether or not appropriated Federal funds are used for procurement of items designated by EPA.

(3) The $10,000 threshold applies to procuring agencies as a whole rather than to agency subgroups such as regional offices or subagencies.

(b) The term "procurement actions" includes purchases made directly by a procuring agency and purchases made by any person directly in support of work being performed for a procuring agency (e.g., by a contractor).

(c) This guideline does not apply to urchases which are not the direct sult of a contract, grant, loan, funds sbursement, or agreement with a rocuring agency.

252.4 Definitions.

As used in this guideline:

(a) "Act" or "RCRA" means the olid Waste Disposal Act, as amended y the Resource Conservation and Re- overy Act, as amended, 42 U.S.C. 6901 *seq.*

(b) "Engine lubricating oils" means etroleum-based oils used for reducing iction in engine parts.

(c) "Federal agency" means any de- artment, agency, or other instrumen- ality of the Federal Government; any ndependent agency or establishment the Federal Government including ny Government corporation; and the overnment Printing Office.

(d) "Gear oils" means petroleum- ased oils used for lubricating machin- y gears.

(e) "Hydraulic fluids" means petrole- m-based hydraulic fluids.

(f) "Person" means an individual, ust, firm, joint stock company, cor- oration (including a government cor- oration), partnership, association, ederal agency, State, municipality, ommission, political subdivision of a tate, or any interstate body.

(g) "Practicable" means capable of eing used consistent with: Perform- nce in accordance with applicable pecifications, availability at a reason- ble price, availability within a reason- ble period of time, and maintenance f a satisfactory level of competition.

(h) "Procurement item" means any evice, good, substance, material, roduct, or other item, whether real r personal property, which is the sub- ect of any purchase, barter, or other xchange made to procure such item.

(i) "Procuring agency" means any ederal agency, or any State agency or gency of a political subdivision of a State which is using appropriated Fed- ral funds for such procurement, or ny person contracting with any such gency with respect to work per- ormed under such contract.

(j) "Re-refined oils" means used oils rom which the physical and chemical ontaminants acquired through previous use have been removed through a refining process.

(k) "Specification" means a description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. In general, specifications are in the form of written commercial designations, industry standards, and other descriptive references.

Subpart B—Specifications

§ 252.10 Revisions.

(a) Federal agencies that have the responsibility for drafting or reviewing specifications for procurement items procured by Federal agencies were required to revise their specifications by May 8, 1986 to eliminate any exclusion of recovered materials and any requirement that items be manufactured from virgin materials.

(b) Within one year after the effective date of this guideline, each procuring agency must assure that its specifications for lubricating oils require the use of re-refined oils to the maximum extent possible without jeopardizing the intended end use of these items.

(c) EPA recommends that procuring agencies use the specifications identified in § 252.11 of this part when procuring lubricating oils containing re-refined oil.

§ 252.11 Recommendations.

(a) EPA recommends that procuring agencies use the following specifications when procuring lubricating oils containing re-refined oil:

(1) Engine lubricating oils.

(i) MIL-L-46152B (or current version)—Lubricating Oil, Internal Combustion Engine, Administrative Service

(ii) API Engine Service Category SF—1980 Gasoline Engine Warranty Maintenance Service

(iii) API Engine Service Category CC—Diesel Engine Service

(iv) MIL-L-2104D (or current version)—Lubricating Oil, Internal Combustion Engine, Tactical Service

(v) API Engine Service Category CD—Diesel Engine Service

(vi) MIL-L-21260D (or current version)—Lubricating Oil, Internal Combustion Engine, Preservative and Break-In

(vii) MIL-L-46167 (current version)—Lubricating Oil, Internal Combustion Engine, Arctic

(2) Hydraulic fluids.

(i) MIL-H-5606 (current version)—Hydraulic Fluid, Petroleum Base; Aircraft, Missile, and Ordnance

(ii) MIL-H-6083 (current version)—Hydraulic Fluid, Petroleum Base, For Preservation and Operation

(3) Gear oils. MIL-L-2105D (or current version) Lubricating Oil, Gear, Multipurpose

(b) Copies of the military specifications can be obtained from: Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120.

Subpart C—Affirmative Procurement Program

§ 252.20 General.

Within one year after the date of publication of this guideline as a final rule, each procuring agency which procures lubricating oils must establish an affirmative program for procuring such oils containing re-refined oil. The program must meet the requirements of section 6002(i) of RCRA, including the establishment of a preference program; a promotion program; procedures for obtaining estimates and certification of recovered materials content and for verifying the estimates and certifications; and an annual review and monitoring program. This subpart provides recommendations for implementing section 6002(i).

§ 252.21 Preference program.

(a)(1) EPA recommends that procuring agencies establish minimum re-refined oil content standards for lubricating oils subject to the limitations described in paragraph (b) of this section, so as to achieve procurement of lubricating oils containing re-refined oil to the maximum extent practicable.

(2) EPA recommends that procuring agencies set their minimum re-refined oil content standard at the highest level of re-refined oil that they determine meets the statutory criteria of performance, availability, and price (described in paragraph (b) of this section, but no lower than 25 percent re-refined oil.

(3) From time to time, procuring agencies should reconsider their minimum content standards to determine whether they should be raised or lowered. The determination should be based on a review of the data compiled on re-refined oil content, price, availability, and performance, as recommended in § 252.24(c) of this part, as well as on a comparison of estimates and certifications provided by the vendors.

(b) The recommendations in paragraph (a) of this section, as well as any other affirmative procurement program that an agency may adopt, are subject to the following limitations provided in section 6002(c)(1) of RCRA:

(1) Maintenance of a satisfactory level of competition;

(2) Availability within a reasonable period of time;

(3) Ability to meet the specifications in the invitation for bids;

(4) Availability at a reasonable price.

(c) Procuring agencies must review their procurement practices and eliminate those which would inhibit or preclude procurement of lubricating oils containing re-refined oil. For example, procuring agencies should review the practices of inviting bids and issuing contracts to do the following:

(1) Supply a broad range of lubricating oil products on an "all or none" basis.

(2) Supply lubricating oils for an excessively long period of time.

(3) Deliver lubricating oils to geographic locations throughout the United States or to an excessively broad geographic area.

(4) Supply excessively large contract quantities.

(d) Procuring agencies should make determinations regarding competition and availability in accordance with the Federal Acquisition Regulation (FAR), 48 CFR Ch. 1 *et seq.*

§ 252.22 Promotion program.

EPA recommends that procuring agencies use the following methods, at a minimum, to promote their preference programs:

(a) Place a statement in procurement invitations in the *Commerce Business Daily* or similar publications describing the preference program.

(b) Describe the preference program in lubricating oil procurement solicitations or invitations to bid.

(c) Discuss the preference program at bidders' conferences.

(d) Inform industry trade associations about the preference program.

(e) Issue press releases describing the affirmative procurement program to recycling industry journals.

§ 252.23 Estimates, certification, and verification.

Each procuring agency must develop estimation, certification, and verification procedures:

(a) When a vendor supplies lubricating oils, the contracting officer must require the vendor to estimate the total percentage of re-refined oil in the lubricating oils. EPA recommends that procuring agencies maintain records of these estimates for three years by type of product, quantity purchased, and price paid.

(b) When a procurement solicitation or invitation for bid requires a minimum re-refined oil content, procuring agencies must require vendors to certify that the percentage of re-refined oil to be used in the performance of the contract will be at least the amount required by the solicitation or invitation for bid.

(c) The affirmative procurement program must contain reasonable verification procedures for estimates and certifications. EPA recommends that procuring agencies revise the contract quality assurance procedures developed under Part 46 of the FAR to include verification of estimates and certifications of re-refined oil content. EPA recommends that procuring agencies verify content by reviewing the mixing records of the manufacturer or blender.

§ 252.24 Annual review and monitoring.

(a) Each procuring agency must conduct an annual review and monitoring of the effectiveness of its affirmative procurement program.

(b) EPA recommends that the annual review include the following items:

(1) An estimate of the quantity of lubricating oils containing re-refined oil purchased and the total quantity of lubricating oils purchased.

(2) An assessment of the effectiveness of the promotion program.

(3) An assessment of any remaining barriers to purchase of lubricating oils containing re-refined oil to determine whether the barriers are internal (e.g., resistance to use) or external (e.g., unavailability).

(4) A summary of the data compiled in each category listed in paragraph (c) of this section.

(5) A review of the range of estimates and certifications of re-refined oil content in lubricating oils provided by vendors during the year to determine whether minimum content standards should be raised or lowered.

(c) Procuring agencies should monitor their procurements to compile data on the following:

(1) The percentages of re-refined oil content in the products procured or offered;

(2) Comparative price information on competitive procurements;

(3) The quantity of each type of lubricating oil procured over a fiscal year;

(4) The availability of lubricating oils to procuring agencies;

(5) Types of quality verification tests conducted, if any, together with the categories of lubricating oils containing re-refined oil that failed the tests, the percentages of total virgin products and products containing re-refined oil, respectively, that failed each test, and the nature of the failure;

(6) Agency experience with the performance of the procured products.

(d) Procuring agencies should prepare a report on their annual review and monitoring of the effectiveness of their procurement programs and make it available to the public. The report should include:

(1)(i) A discussion of the procuring agency's decision to raise or lower the minimum content standards in use, if the agency uses the minimum content standards approach; or

(ii) A demonstration that the procuring agency's use of the case-by-case approach or a substantially equivalent alternative satisfies the requirement to procure lubricating oils containing re-refined oil to the maximum extent practicable; and

(2) Documentation of specification revisions made during the reporting period.

§ 252.25 Implementation.

(a) Procuring agencies must complete specification revisions in accordance with RCRA section 6002(d)(2) and development of affirmative procurement programs in accordance with RCRA section 6002(i) within one year from the date of publication of this guideline.

(b) Procuring agencies must begin procurement of lubricating oils containing re-refined oil, in compliance with RCRA section 6002, one year from the date of publication of this guideline.

PART 253—GUIDELINE FOR FEDERAL PROCUREMENT OF RETREAD TIRES

Subpart A—General

Sec.
253.1 Purpose.
253.2 Designation.
253.3 Applicability.
253.4 Definitions.

Subpart B—Specifications

253.10 Revisions.
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Subpart C—Affirmative Procurement Program

253.20 General.
253.21 Preference program.
253.22 Promotion program.
253.23 Estimation, certification, and verification.
253.24 Annual review and monitoring.
253.25 Implementation.

Authority: 42 U.S.C. 6912(a) and 6962.

Source: 53 FR 46572, Nov. 17, 1988, unless otherwise noted.

Subpart A—General

§ 253.1 Purpose.

(a) The purposes of this guideline are:

(1) To assist procuring agencies in complying with the requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA or the Act), as amended, 42 U.S.C. 6962, as that section applies to procurement of tires and

(2) To designate tires as a procurement item subject to RCRA section 6002.

(b) This guideline contains recommendations for use in implementing the requirements of section 6002, including revision of specifications and development of an affirmative procurement program.

(c) The Environmental Protection Agency (EPA) believes that adherence to the recommendations in the guideline constitutes compliance with section 6002. However, procuring agencies may adopt other types of procurement programs consistent with section 6002.

§ 253.2 Designation.

EPA designates tires as items which are or can be produced with recovered materials (i.e., used tire casings) and whose procurement by procuring agencies will carry out the objectives of section 6002 of RCRA. For purposes of this guideline, the term "tires" does not include airplane tires.

§ 253.3 Applicability.

(a)(1) This guideline applies to all procuring agencies and to all procurement actions involving tires when the procuring agency makes a purchase, in the current fiscal year, worth $10,000 or more, or when the cost of such items or of functionally equivalent items purchased during the preceding fiscal year was $10,000 or more. For purposes of the $10,000 threshold, all sizes and types of tires should be considered to be "functionally equivalent."

(2) This guideline applies to Federal agencies, to State or local agencies using appropriated Federal funds, and to persons contracting with any such

agencies with respect to work performed under such contracts.

(i) Federal agencies should note that the requirements of RCRA section 6002 apply to them whether or not appropriated Federal funds are used for procurement of items designated by EPA.

(ii) This guideline also applies to State and local agencies and to contractors whenever commingled Federal and non-Federal funds are used to procure tires.

(iii) The $10,000 threshold applies to procuring agencies as a whole rather than to agency subgroups such as regional offices or subagencies.

(b) The term "procurement actions" includes purchases made directly by a procuring agency and purchases made by any person directly in support of work being performed for a procuring agency (e.g., by a contractor).

(c) This guideline does not apply to purchases which are not the direct result of a contract, grant, loan, funds disbursement, or agreement with a procuring agency.

§ 253.4 Definitions.

As used in this guideline:

"Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 *et seq.*

"Federal agency" means any department, agency or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

"Person" means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, Federal agency, State, municipality, commission, political subdivision of a State, or any interstate body.

"Practicable" means capable of being used consistent with: performance in accordance with applicable specifications, availability at a reasonable price, availability within a reasonable period of time, and maintenance of a satisfactory level of competition.

"Procurement item" means any device, good, substance, material, product, or other item, whether real or personal property, which is the subject of any purchase, barter, or other exchange made to procure such item.

"Procuring agency" means any Federal agency, or any State agency or agency of a political subdivison of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract.

"Retread tire" means a worn automobile, truck, or other motor vehicle tire whose tread has been replaced.

"Specification" means a description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. In general, specifications are in the form of written commercial designations, industry standards, and other descriptive references.

"Tire" means the following types of tires: passenger car tires, light- and heavy-duty truck tires, high speed industrial tires, bus tires, and special service tires (including Military, agricultural, off-the-road, and slow speed industrial).

Subpart B—Specifications

§ 253.10 Revisions.

(a) By May 8, 1986, Federal agencies were required to eliminate from their specifications any exclusion of retread tires and any requirement that tires be manufactured from virgin materials unless there is a technical basis for such exclusion or requirement.

(b) Within one year after the date of publication of this guideline, each procuring agency must assure that its specifications require the use of retread tires to the maximum extent possible without jeopardizing the intended end use of these items. Specifications should indicate the functional requirements of tires to be procured, including the performance criteria (e.g., high speed tires), any desired mileage guarantees, and the size and type of tire required.

§ 253.11 Exclusions.

Any procuring agency which prepares a specification which excludes retread tires should document its determination that use of retread tires will jeopardize the intended end use of the tire. Such determinations should be based on technical performance information and identify any performance criteria that cannot be satisfied by retread tires.

Subpart C—Affirmative Procurement Program

§ 253.20 General.

(a) Within one year after the date of publication of this guideline as a final rule, each procuring agency which procures tires must establish an affirmative procurement program for procuring retread tires to the maximum extent practicable. The program must meet the requirements of section 6002(i) of RCRA, including the establishment of a preference program; a promotion program; procedures for estimation, certification, and verification; and procedures for conducting an annual review of the affirmative procurement program. This subpart provides recommendations for implementing section 6002(i).

(b) Federal agencies should note that while the U.S. General Services Administration executes tire contracts, it is not responsible for developing and implementing an affirmative procurement program under RCRA section 6002 for any agency but itself. Each Federal agency is responsible for its own section 6002 affirmative procurement program.

§ 253.21 Preference program.

(a) EPA recommends that procuring agencies establish preference programs consisting of two components:

(1) Procurement of tire retreading services for the agencies' used carcasses, such as from persons identified on the U.S. General Services Administration's Federal Supply Schedules.

(2) Procurement of tires through competition between vendors of new tires and vendors of retread tires. Procuring agencies should provide a preference to the vendor offering to supply the greatest number of retread tires in the event that identical low bids are received in response to a solicitation, all other factors being equal.

(b) EPA further recommends that procuring agencies establish a tire procurement policy stating that the agency will first procure retreading services for its used tires to the maximum extent practicable and, if such services are not practicable, obtain replacement tires from the vendor(s) awarded the contract(s) to supply tires.

(c) EPA recommends that a procuring agency that is unable to implement one of the components listed in paragraph (a) of this section document that it is unable to purchase retread tires or tire retreading services due to one or more of the following limitations:

(1) Unsatisfactory level of competition;

(2) Unavailability within a reasonable period of time;

(3) Inability to meet the specifications in the invitation for bids, provided that such specifications satisfy RCRA section 6002(d) and Subpart B of this part;

(4) Unavailability at a reasonable price.

The agency also must continue to attempt to implement the component.

(d) EPA recommends that procuring agencies record the following information for each procurement:

(1) Type and quantity of tires,

(2) Whether new tires, retread tires, or retreading services were procured,

(3) Cost per tire, and

(4) If new tires are procured, the reason for not procuring retreading services or retread tires.

(e) Procuring agencies must review their procurement practices and eliminate those which would inhibit or preclude use of retread tires.

§ 253.22 Promotion program.

Procuring agencies must develop a promotion program to promote the preference program. EPA recommends that procuring agencies use the following methods, at a minimum, to promote their preference programs:

(a) Place a statement in procurement invitations in the *Commerce Business Daily* describing the preference program.

(b) Describe the preference program in tire procurement solicitations or invitations to bid.

(c) Discuss the preference program at bidders' conferences.

(d) Inform industry trade associations about the preference program.

§ 253.23 Estimation, certification, and verification.

(a)(1) Except as provided in paragraph (a)(2) of this section, contracting officers must require vendors who supply tires to procuring agencies to estimate the number of retread tires to be supplied. EPA recommends that procuring agencies retain these estimates for three years from the date they are received.

(2) The estimation requirement does not apply when a procuring agency purchases tire retreading services using an indefinite quantity contract.

(b) EPA recommends that as part of a solicitation for tires as products, procuring agencies require vendors to certify the number of retread tires to be supplied or the percentage of the total tires to be supplied that will be retread tires.

(c) Procuring agencies must establish reasonable procedures to verify the estimates. EPA recommends that procuring agencies randomly check the numbers stamped on tire sidewalls to verify that retread tires have been supplied. (In accordance with U.S. Department of Transportation regulations, the tire will be stamped with the symbol DOT-R.)

§ 253.24 Annual review and monitoring.

(a) Each procuring agency must conduct an annual review and monitoring of the effectiveness of its affirmative procurement program. EPA recommends that the annual review include the following items:

(1) An estimate of the number of retread tires purchased.

(2) An assessment of the effectiveness of the preference program.

(3) An assessment of remaining barriers to procurement of retread tires to determine whether they are internal (e.g., resistance to use) or external (e.g., unavailability) barriers.

(4) A program to gather statistics. Procuring agencies should monitor their procurements to provide data on the following:

(i) Comparative price information on competitive procurements;

(ii) The quantity of each item procured over a fiscal year;

(iii) The availability of retread tires or tire retreading services to procuring agencies;

(iv) Type of performance tests conducted, together with the type of retread tires that failed the tests, the percentages of all new tires and retread tires procured, respectively, that failed each test, and the nature of the failure;

(v) Agency experience with the performance of the procured products.

(b) Procuring agencies should prepare a report on their annual review and monitoring of the effectiveness of their procurement programs and make these reports available to the public. The reports should contain the following information:

(1) A discussion of how the procuring agency's approach procures retread tires or tire retreading services to the maximum extent practicable. The basis for this discussion should be a review of the data compiled on price, availability, and performance, as well as a comparison of estimates and certifications provided by the vendors.

(2) Documentation of specification revisions made during the year.

§ 253.25 Implementation.

(a) Federal agencies were required to review and revise their specifications, as set forth in § 253.10(a), by May 8, 1986.

(b) Procuring agencies are required to revise their specifications as set forth in § 253.10(b), and to establish affirmative procurement programs, as set forth in Subpart C, by November 17, 1989.

(c) Procuring agencies must begin procurement of retread tires, in compliance with this guideline, by November 17, 1989.

PART 254—PRIOR NOTICE OF CITIZEN SUITS

Sec.
254.1 Purpose.
254.2 Service of notice.
254.3 Contents of notice.

AUTHORITY: Sec. 7002, Pub. L. 94-580, 90 Stat. 2825 (42 U.S.C. 6972).

SOURCE: 42 FR 56114, Oct. 21, 1977, unless otherwise noted.

§ 254.1 Purpose.

Section 7002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, authorizes suit by any person to enforce the Act. These suits may be brought where there is alleged to be a violation by any person (including (a) the United States, and (b) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) of any permit, standard, regulation, condition, requirement, or order which has become effective under the Act, or a failure of the Administrator to perform any act or duty under the Act, which is not discretionary with the Administrator. These actions are to be filed in accordance with the rules of the district court in which the action is instituted. The purpose of this part is to prescribe procedures governing the notice requirements of subsections (b) and (c) of section 7002 as a prerequisite to the commencement of such actions.

§ 254.2 Service of notice.

(a) Notice of intent to file suit under subsection 7002(a)(1) of the Act shall be served upon an alleged violator of any permit, standard, regulation, condition, requirement, or order which has become effective under this Act in the following manner:

(1) If the alleged violator is a private individual or corporation, service of notice shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the owner or site manager of the building, plant, installation, or facility alleged to be in violation. A copy of the notice shall be mailed to the Administrator of the Environmental Protection Agency, the Regional Administrator of the Environmental Protection Agency for the region in which the violation is alleged to have occurred, and the chief administrative officer of the solid waste management agency for the State in which the violation is alleged to have occurred. If the alleged violator is a corporation, a copy of the notice shall also be mailed to the registered agent, if any, of that corporation in the State in which such violation is alleged to have occurred.

(2) If the alleged violator is a State or local agency, service of notice shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the head of that agency. A copy of the notice shall be mailed to the chief administrator of the solid waste management agency for the State in which the violation is alleged to have occurred, the Administrator of the Environmental Protection Agency, and the Regional Administrator of the Environmental Protection Agency for the region in which the violation is alleged to have occurred.

(3) If the alleged violator is a Federal agency, service of notice shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the head of the agency. A copy of the notice shall be mailed to the Administrator of the Environmental Protection Agency, the Regional Administrator of the Environmental Protection Agency for the region in which the violation is alleged to have occurred, the Attorney General of the United States, and the chief administrative officer of the solid waste management agency for the State in which the violation is alleged to have occurred.

(b) Service of notice of intent to file suit under subsection 7002(a)(2) of the Act shall be accomplished by registered mail, return receipt requested, addressed to, or by personal service upon, the Administrator, Environmental Protection Agency, Washington, DC 20460. A copy of the notice shall be mailed to the Attorney General of the United States.

(c) Notice given in accordance with the provisions of this part shall be considered to have been served on the date of receipt. If service was acomplished by mail, the date of receipt will be considered to be the date noted on the return receipt card.

§ 254.3 Contents of notice.

(a) *Violation of permit, standard, regulation, condition, requirement, or order.* Notice regarding an alleged violation of a permit, standard, regulation, condition, requirement, or order which has become effective under this Act shall include sufficient information to permit the recipient to identify the specific permit, standard, regulation, condition, requirement, or order which has allegedly been violated, the activity alleged to constitute a violation, the person or persons responsible for the alleged violation, the date or dates of the violation, and the full name, address, and telephone number of the person giving notice.

(b) *Failure to act.* Notice regarding an alleged failure of the Administrator to perform an act or duty which is not discretionary under the Act shall identify the provisions of the Act which require such act or create such duty, shall describe with reasonable specificity the action taken or not taken by the Administrator which is claimed to constitute a failure to perform the act or duty, and shall state the full name, address, and telephone number of the person giving the notice.

(c) *Identification of counsel.* The notice shall state the name, address, and telephone number of the legal counsel, if any, representing the person giving the notice.

PART 255—IDENTIFICATION OF REGIONS AND AGENCIES FOR SOLID WASTE MANAGEMENT

Subpart A—General Provisions

Sec.
255.1 Scope and purpose.
255.2 Definitions.

Subpart B—Criteria for Identifying Regions and Agencies

255.10 Criteria for identifying regions.
255.11 Criteria for identifying agencies.

Subpart C—Procedures for Identifying Regions and Agencies

Sec.
255.20 Preliminary identification of regions.
255.21 Local consultation on boundaries.
255.22 Establishing regional boundaries.
255.23 Joint identification of agencies.
255.24 Procedure for identifying interstate regions.
255.25 Public participation.

Subpart D—Responsibilities of Identified Agencies and Relationship to Other Programs

255.30 Responsibilities established.
255.31 Integration with other acts.
255.32 Coordination with other programs.
255.33 Inclusion of Federal facilities and Native American Reservations.

Subpart E—Submission and Revision of Identifications

255.40 Notification of status.
255.41 Procedure for revision.

AUTHORITY: Sec. 2002(a)(1), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6912(a)(1)). Also issued under sec. 4006(b), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6946(b)).

SOURCE: 42 FR 24927, May 16, 1977, unless otherwise noted.

Subpart A—General Provisions

§ 255.1 Scope and purpose.

(a) These guidelines are applicable to policies, procedures, and criteria for the identification of those areas which have common solid waste management problems and which are appropriate units for planning regional solid waste management services pursuant to section 4002(a) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (the Act). The guidelines also define and guide the identification of which functions will be carried out by which agencies pursuant to section 4006 of the Act.

(b) The purposes of these guidelines are to (1) provide useful criteria for selecting the regions and agencies to be identified pursuant to section 4006 of the Act and (2) provide guidance for conducting the process which will result in formal identification of those regions and agencies.

(c) Identifications made pursuant to these guidelines should be consistent with State solid waste management plans and strategies. A State strategy establishes: Goals for prevention of adverse effects on the environment resulting from improper solid waste disposal including protection of surface and ground water quality, air quality and the land; priorities among waste types; priorities among disposal practices; and the roles of existing agencies with responsibilities in solid waste management. The identification process should cover all waste types (residential and commercial solid waste, hazardous wastes, industrial sludges and pretreatment residues, municipal sewage sludge, air pollution control residue, septage, mining and agricultural waste, other industrial waste, and solid waste from community activities), all disposal practices (impoundments, pits, ponds, lagoons, landfills, dumps, land-spreading, and industrial leaching fields) and all technological approaches (conservation, recovery, incineration, disposal).

(Also sec. 4002(a), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6942))

§ 255.2 Definitions.

The Act contains an extensive list of definitions in section 1004 which are applicable here. There are further definitions of terms in 40 CFR Part 29 of this chapter which apply unless the context herein requires otherwise.

[42 FR 24927, May 16, 1977, as amended at 48 FR 29302, June 24, 1983]

Subpart B—Criteria for Identifying Regions and Agencies

§ 255.10 Criteria for identifying regions.

The following criteria are to assist in identifying regions pursuant to section 4006(a) of the Act.

(a) Geographic areas which have a history of cooperating to solve problems in environmental or other related matters should be considered.

(1) Regions encompassing existing regional, including countywide, systems or institutions, including those of the private sector, should be evaluated. Changes in their boundaries may be needed for economic viability or other reasons in keeping with the State plan.

(2) Boundary selection which would require the creation of new agencies should be considered only where necessary. The relationship among established agencies should be considered. Where institutional gaps or inadequacies are found, regions should be identified keeping in mind which agencies would be able to fill those needs.

(b) The size and location of regions should permit resource recovery and conservation in accordance with the objectives in section 4001 of the Act.

(1) A region's size and configuration should be considered, weighing transportation costs against economies of scale.

(2) Left-over regions having inadequate resources or volumes of waste should be avoided.

(3) Location should be considered relative to available transportation and to markets for recovered resources.

(c) The volume of wastes within a region will influence the technology choices for recovery and disposal, determine economies of scale, and affect marketability of resources recovered. A region should include sufficient volume of waste to support the goals and objectives of the State plan, including materials or energy recovery as appropriate.

(d) Waste type should be considered since it also affects management options. Industrial or hazardous waste streams may warrant special consideration or special boundaries.

(e) The effect of geologic and hydrologic conditions, such as soil suitability, land availability, natural barriers (rivers and mountains), the quantity and availability of water resources, and the susceptibility of ground water to contamination should be considered. Aquifer protection in accordance with State water quality management plans and policies could influence boundary selection.

(f) Coordination with ongoing planning for other purposes may be an influence in selecting boundaries.

(1) The local and regional planning process should be integrated into the State planning process.

(2) Use of a common data base should be encouraged among transportation, land use, and other planning areas.

(3) To the extent practicable, coterminous planning regions should be encouraged, and larger regions should be multiples of whole smaller regions.

(4) Coordination should be provided with those agencies designated for water quality management planning under section 208 of the Federal Water Pollution Control Act, with underground injection control agencies designated in accordance with the Safe Drinking Water Act, and with air quality planning agencies designated under the Clean Air Act.

(Sec. 4002(a), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6942))

§ 255.11 Criteria for identifying agencies.

The following criteria are intended to assist in the process of agency selection pursuant to section 4006(b) of the Act. They may also be useful in pointing out needed improvements in the qualifications of the selected agencies.

(a) Existing agencies with demonstrated satisfactory ability to plan, manage, or operate solid waste management services should be considered for planning and implementation responsibilities. Agencies which have completed planning that resulted in successful implementation of solid waste management facilities or services should be given priority consideration for future planning responsibilities when they otherwise meet these criteria.

(b) An agency to be identified as responsible for conducting regional solid waste management planning should:

(1) Be a representative organization composed of, or whose membership is composed of, individuals at least a majority of whom are elected officials of local governments or their designees having jurisdiction in the planning region.

(2) Have planning jurisdiction in the entire planning region.

(3) Be capable of having the planning process fully underway within 1 year after identification.

(4) Have established procedures for adoption, review, and revision of plans and resolution of major issues, including procedures for public participation in the planning process.

(5) Have appropriate experience and skills to perform all of its assigned responsibilities, including expertise for the particular waste type, processing or disposal technology, and functional area. (Attention is directed to OMB Circular No. A-95, paragraph 1.e., Part IV of Attachment A which encourages the designation of established substate district comprehensive planning agencies as the agencies to carry out areawide planning assisted or required under any Federal program).

(c) In identifying agencies for solid waste management planning and implementation under section 4006 of the Act, the State should review the solid waste activities being conducted by water quality management planning agencies designated under section 208 of the Federal Water Pollution Control Act. Where feasible, identification of such agencies should be considered in the joint identification processes of Subpart C of this part. There should be a formal means of coordination established with the State water quality management agencies.

(d) Planning objectives will influence agency selection. Distinctions may be made between policy planning and facility planning and between planning a single solid waste management system and comprehensive planning which addresses trade-offs among various media.

(e) For coordinating planning and implementation under the State plan, as required in section 4003(1)(c), consideration should be given to identifying one agency for both functions. Where separate planning and implementation agencies are selected, there should be some means to ensure implementation, such as State legislation or an interagency agreement that all constituent jurisdictions will abide by the plan. Furthermore, strong coordination should be established between the planning agency and the implementing agency. During the planning period, the implementation agency should have continual access to plan development processes. There should be an administrative procedure to resolve conflicts between planners and implementers.

(f) The agency responsible for carrying out the regional plan should be constituted with authority to implement the plan in its constituent jurisdictions.

(g) The need for a reliable volume of waste to supply disposal or recovery facilities should be addressed. Agency providing such facilities whose member jurisdictions could choose whether or not to utilize the facility should analyze that need and consider methods such as franchising or public utility controls to assure an adequate supply.

Subpart C—Procedures for Identifying Regions and Agencies

NOTE: The following procedures are provided to assist in establishing consultation and joint identification processes to be used for identifying regions and agencies pursuant to section 4006. Any process which meets the substantive intent of these guidelines may be submitted to the EPA Regional Administrator for purposes of determining grant eligibility under section 4007, especially if such process has been mandated or funded by State legislation.

§ 255.20 Preliminary identification of regions.

Preliminary identification of regions should be made by the Governor or his representative after consultation with regional and areawide planning agencies, water quality and solid waste management planning agencies, cities, and counties and other appropriate units of general purpose local government. The Governor should notify the concerned agencies of his recommendations concerning boundaries. Where the regional identification has already been established by State legislation or other method in keeping with these guidelines, this notification need only request comments on the existing arrangement.

[42 FR 24927, May 16, 1977, as amended at 48 FR 29303, June 24, 1983]

§ 255.21 Local consultation on boundaries.

Any chief executive of a general purpose government within the State may comment on the Governor's recommendation concerning the boundaries.

(a) The purposes of these comments are to assure that the experience of local agencies is used to fullest advantage in boundary decisions, that incompatible institutional arrangements are not forced, and that significant local considerations are not overlooked.

(b) When the objectives of the Act concerning local consultation can be met by an equivalent or existing process established under State administrative procedures acts or other State procedural guidance, the Governor may request that the EPA accept that process in fulfillment of the grant eligibility criteria under section 4007 of the Act.

§ 255.22 Establishing regional boundaries.

Under section 4006(a) of the Act the formal means for identifying regional boundaries are to be regulations promulgated by the Governor. Where the identification of areas has already been made by State legislation or other means which have legal stature equivalent to the required regulations, and where notification and consultation have occurred pursuant to §§ 255.20 and 255.21 of this part, such legislation may be used in lieu of those regulations. Where substantial disagreement persists between the Governor and local officials, normal State administrative and judicial appeals procedures are available to resolve such conflict.

§ 255.23 Joint identification of agencies.

(a) The Governor should designate a lead agency to manage the identification process. That agency should review established notification procedures to determine that at least all general purpose local governments within the State, all units of regional governance, all existing solid waste and water quality management planning agencies, and all areawide agencies and the state process under Executive Order 12372 will be notified. If necessary, a supplemental distribution list should be prepared. Consideration should be given to addressing individual offices within those agencies.

(b) The Governor should, by correspondence or State notification procedures, notify the agencies on the distribution list (paragraph (a) of this section) of the purpose and schedule of the joint identification process. This may be coincident with the notification in § 255.20.

(c) The Governor, an appropriate legislative committee, and appropriate local elected officials may submit nominations of agencies and functions to the lead agency appointed by the Governor. This lead agency should make such nominations public.

(d) Chief executives of agencies on the distribution list may comment by letter on the nominations.

(e) If a disagreement exists which cannot be settled by correspondence or a meeting with the Governor's representative, a public hearing should be held and all elected officials of local general purpose governments within the region should be invited. The purpose of this meeting will be for the local officials to reach a consensus regarding the agency(ies) to be formally identified.

(f) When a consensus is reached among local elected officials a formal agreement should be made in conformance with State administrative procedures. It should be binding until revised in accordance with this subpart.

(g) When the local consensus is in agreement with the State opinion, the State should confirm that agreed arrangement, formally establishing the duties and responsibilities of the identified agencies by legislative resolution or executive order.

(h) In the event that a consensus cannot be reached before 270 days after promulgation of regulations pursuant to § 255.22 the Governor should designate a State agency to develop and implement the plan for the concerned region.

[42 FR 24927, May 16, 1977, as amended at 48 FR 29303, June 24, 1983]

§ 255.24 Procedure for identifying interstate regions.

If the Governor's recommendation, the local consensus, or a neighboring Governor's recommendation is that an interstate region be identified, the procedures described in this subpart should be extended to include notification and comment of all concerned officials in the entire recommended region.

(a) Section 4006(c) of the Act establishes specific procedures for the conduct of interstate identification processes.

(b) Recommendations, nominations, and comments resulting from processes described in §§ 255.20 and 255.21 that concern interstate regions should be brought to the attention of the appropriate EPA Regional Administrator.

(c) The Governor should evaluate the use of interstate metropolitan area (Standard Metropolitan Statistical Area) boundaries for planning and management purposes, and consider nominating such areas where appropriate.

(Also sec. 4006(c), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6946(c)))

§ 255.25 Public participation.

Public participation in the process of identifying regions and agencies should be provided for, encouraged, and assisted by the State and local officials.

Subpart D—Responsibilities of Identified Agencies and Relationship to Other Programs

§ 255.30 Responsibilities established.

The following duties and responsibilities should be assigned for all appropriate areas pursuant to section 4006.

(a) Disposal of municipal solid waste should be an identified responsibility throughout the State. In the event that no local or regional agency is held responsible for disposal for a region, a State agency should be identified and held accountable.

(b) Where the State plan identifies municipal sewage sludge disposal, hazardous waste disposal or other functions needing attention in a region, an agency should be identified as being responsible for that function in that region.

(c) These responsibilities may be assigned with the intent that private industry be the actual purveyor of service.

§ 255.31 Integration with other acts.

The Governor shall integrate the provisions of these guidelines for purposes of administration and enforcement, and should avoid duplication to the maximum extent practicable, with the appropriate regional identification provisions of the Clean Air Act (42 U.S.C. 1857 et seq.), the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), the Safe Drinking Water Act (42 U.S.C. 300f et seq.), the Toxic Substances Control Act (15 U.S.C. 2601 et seq.), the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.) and other appropriate Acts of Congress.

(Sec. 1006(b), Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6905(b)))

§ 255.32 Coordination with other programs.

The region and agency identification criteria (§ 255.11) specify review of solid waste activities being conducted by water quality management planning agencies, underground injection control agencies, and air quality management agencies. There should be a formal means of coordination established between any agencies established under section 4006 which are not identical with these agencies. Coordination should be established so that permittees under the National Pollutant Discharge Elimination System of the Federal Water Pollution Control Act will be consulted concerning disposal of residual sludges.

§ 255.33 Inclusion of Federal facilities and Native American Reservations.

Major Federal facilities and Native American Reservations should be treated for the purposes of these guidelines as though they are incorporated municipalities, and the facility director or administrator should be considered the same as a locally elected official.

(Sec. 6001, Pub. L. 94-580, 90 Stat. 2795 (42 U.S.C. 6961))

Subpart E—Submission and Revision of Identifications

§ 255.40 Notification of status.

This subpart describes procedures which may ultimately be required by EPA when it publishes regulations governing application and eligibility for grants under section 4007. Under these regulations the appropriate EPA Regional Administrator will consider the identifications made under section 4006 as one of the conditions of grant eligibility.

The Regional Administrator may accept, in State grant applications, notification of the status of these identifications to insure that premature decisions on State plan development will not be forced by the timing of the identifications specified in the Act. Procedures are outlined here to advise the States of what EPA expects to require in such notification.

(a) The notification should specify those regional boundaries and agencies which are uncontested at the time of submission, and specify a schedule of hearings and determinations of subsequent identification of regions and agencies as consensus is reached.

(b) The appropriate level of detail and the timing of the identifications to be made should be established for each planning region after agreement between the State and the appropriate EPA Regional Administrator. The timing should depend upon how well the State plan is developed, the environmental and economic decisions to be made, and the existing management approaches to their resolution.

(c) The notification should list the major known interested agencies and private operators within each planning region and describe how they will be included in the process. Where appropriate, it should include an expression of their interest and a definition of the extent and limits of their role in solid waste management planning.

(d) The notification should provide a schedule for phasing of plan development with the identification of agencies to carry out those plans, showing the projected maturation of management agencies and the milestones for

se agencies in taking over the plan
lementation process.
c) This notification should include
ablishment of State agencies where
ional planning and implementation
ncies have not been identified
hin 270 days of the Governor's pro-
lgation of regulations identifying
ional boundaries.

e sec. 4006(b)(2))

5.41 Procedure for revision.

he procedure for revising regional
ntifications or agency responsibil-
s should be specified by the notifi-
ion.
a) The State should review and, if
propriate, revise or modify the iden-
cation of regions and the responsi-
ties of local and regional agencies
intervals of less than 3 years.
view and modification should in-
de, but not be limited to, the fol-
ing areas:
1) Whether new regions should be
ntified, or whether present bound-
es should be modified.
2) Whether responsibilities of an
ncy should be expanded or reduced
to changes in the needs for solid
ste functions in the region.
b) Revisions or adjustments to the
te plan may require minor bounda-
or agency changes from time to
e. The appropriate EPA Regional
ministrator should be notified of
h revisions by the State solid waste
ncy.
c) Major revisions or adjustments in
ncies or boundaries should be made
consultation with local officials and
subject to the same procedures
d in the original identification
ocess. Notification of such revisions
uld be submitted with State plan
dates.

PART 256—GUIDELINES FOR DEVELOPMENT AND IMPLEMENTATION OF STATE SOLID WASTE MANAGEMENT PLANS

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AUTHORITY: Sec. 4002(b), Pub. L. 94-580, 90 Stat. 2813(b) (42 U.S.C. 6942(b)).

SOURCE: 44 FR 45079, July 31, 1979, unless otherwise noted.

EDITORIAL NOTE: For approval of State solid waste management plans see the List of CFR Sections Affected in the Finding Aids section of this volume.

Subpart A—Purpose, General Requirements, Definitions

§ 256.01 Purpose and scope of the guidelines.

(a) The purpose of these guidelines is to assist in the development and implementation of State solid waste management plans, in accordance with section 4002(b) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6942(b)) (the "Act"). These guidelines contain methods for achieving the objectives of environmentally sound management and disposal of solid and hazardous waste, resource conservation, and maximum utilization of valuable resources.

(b) These guidelines address the minimum requirements for approval of State plans as set forth in section 4003 of the Act. These are:

(1) The plan shall identify, in accordance with section 4006(b), (i) the responsibilities of State, local, and regional authorities in the implementation of the State plan, (ii) the distribution of Federal funds to the authorities responsible for development and implementation of the State plan, and (iii) the means for coordinating regional planning and implementation under the State plan.

(2) The plan shall, in accordance with section 4005(c), prohibit the establishment of new open dumps within the State, and contain requirements that all solid waste (including solid waste originating in other States, but not including hazardous waste) shall be (i) utilized for resource recovery or (ii) disposed of in sanitary landfills (within the meaning of section 4004(a)) or otherwise disposed of in an environmentally sound manner.

(3) The plan shall provide for the closing or upgrading of all existing open dumps within the State pursuant to the requirements of section 4005.

(4) The plan shall provide for the establishment of such State regulatory powers as may be necessary to implement the plan.

(5) The plan shall provide that no local government within the State shall be prohibited under State or local law from entering into long-term contracts for the supply of solid waste to resource recovery facilities.

(6) The plan shall provide for resource conservation or recovery and for the disposal of solid waste in sanitary landfills or for any combination of practices so as may be necessary to use or dispose of such waste in a manner that is environmentally sound.

(c) These guidelines address the requirement of section 4005(c) that a State plan:

> Shall establish, for any entity which demonstrates that it has considered other public or private alternatives for solid waste management to comply with the prohibition on open dumping and is unable to utilize such alternatives to so comply, a timetable or schedule of compliance for such practice or disposal of solid waste which specifies a schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with the prohibition on open dumping of solid waste within a reasonable time (not to exceed five years from the date of publication of the inventory).

§ 256.02 Scope of the State solid waste management plan.

(a)(1) The State plan shall address all solid waste in the State that poses potential adverse effects on health or the environment or provides opportuity for resource conservation or re-urce recovery. The plan shall consid-r:

(i) Hazardous wastes;

(ii) Residential, commercial and in-itutional solid waste;

(iii) Wastewater treatment sludge;

(iv) Pollution control residuals;

(v) Industrial wastes;

(vi) Mining wastes;

(vii) Agricultural wastes;

(viii) Water treatment sludge; and

(ix) Septic tank pumpings.

(2) The State plan shall consider the ollowing aspects of solid waste man-gement:

(i) Resource conservation;

(ii) Source separation;

(iii) Collection;

(iv) Transportation;

(v) Storage;

(vi) Transfer;

(vii) Processing (including resource ecovery);

(viii) Treatment; and

(ix) Disposal.

(b) The State Plan shall establish nd justify priorities and timing for ctions. These priorities shall be based n the current level of solid waste anagement planning and implemen-ation within the State, the extent of he solid waste management problem, he health, environmental and eco-omic impacts of the problem, and the esources and management approach-s available.

(c) The State plan shall set forth an rderly and manageable process for chieving the objectives of the Act and meeting the requirements of these guidelines. This process shall describe as specifically as possible the activities to be undertaken, including detailed schedules and milestones.

(d) The State plan shall cover a minimum of a five year time period from the date submitted to EPA for approval.

(e) The State plan shall identify existing State legal authority for solid waste management and shall identify modifications to regulations necessary to meet the requirements of these guidelines.

§ 256.03 State plan submission, adoption, and revision.

(a) To be considered for approval, the State plan shall be submitted to EPA within a reasonable time after final promulgation of these guidelines.

(b) Prior to submission to EPA, the plan shall be adopted by the State pursuant to State administrative procedures.

(c) The plan shall be developed in accord with public participation procedures required by Subpart G of this part.

(d) The plan shall contain procedures for revision. The State plan shall be revised by the State, after notice and public hearings, when the Administrator, by regulation, or the State determines, that:

(1) The State plan is not in compliance with the requirements of these guidelines;

(2) Information has become available which demonstrates the inadequacy of the plan; or

(3) Such revision is otherwise necessary.

(e) The State plan shall be reviewed by the State and, where necessary, revised and readopted not less frequently than every three years.

(f) States which are developing a complete State plan may submit the portion of the plan designed to satisfy the requirements of § 256.26 prior to submission of the complete plan.

[44 FR 45079, July 31, 1979, as amended at 46 FR 47051, Sept. 23, 1981]

§ 256.04 State plan approval, financial assistance.

(a) The Administrator shall, within six months after a State plan has been submitted for approval, approve or disapprove the plan. The Administrator shall approve a plan if he determines that:

(1) It meets the requirements of these guidelines which address sections 4003(1), (2), (3), and (5), and

(2) It contains provisions for revision pursuant to § 256.03.

(b) The Administrator shall review approved plans from time to time, and if he determines that revisions or corrections are necessary to bring such plan into compliance with all of the requirements of these guidelines, including the requirements which address sections 4003(4) and (6) and any new or revised requirement established by amendment to this part, he shall notify the State and provide an opportunity for such revisions and corrections and for an appeal and public hearing. If the plan continues to remain out of compliance, he shall withdraw his approval of such plan.

(c) Such withdrawal of approval shall cease to be effective upon the Administrator's determination that the State plan complies with the requirements of these guidelines.

(d) The Administrator shall approve a State application for financial assistance under Subtitle D of the Act, and make grants to such State, if the Administrator determines that the State plan continues to be eligible for approval and is being implemented by the State.

(e) Upon withdrawal of approval of a State plan, the Administrator shall withhold Federal financial and technical assistance under Subtitle D (other than such technical assistance as may be necessary to assist in obtaining reinstatement of approval) until such time as approval is reinstated. (Procedures for termination of financial assistance and for settlement of disputes are contained in 40 CFR Part 30, Appendix A, articles 7 and 8.)

(f) If a State submits to EPA the portion of the plan by which entities may, pursuant to § 256.26, obtain timetables or schedules of compliance for complying with the open dumping prohibition, the Administrator shall approve such portion of the plan if he determines that:

(1) The portion submitted satisfies the requirements of § 256.26;

(2) The State has the general legal authority to issue and enforce compliance schedules; and

(3) The remainder of the plan is being developed in conformity with these guidelines and will be completed within a reasonable period of time.

In giving partial plan approval, the Administrator shall specify in writing the timetable for completion of the final plan as required in paragraph (f)(3) of this section.

[44 FR 45079, July 31, 1979, as amended at 46 FR 47051, Sept. 23, 1981]

§ 256.05 Annual work program.

(a) The annual work program submitted for financial assistance under section 4008(a)(1) and described in the grant regulations (40 CFR Part 35) shall be reviewed by the Administrator in order to determine whether the State plan is being implemented by the State.

(b) The Administrator and the State shall agree on the contents of the annual work program. The Administrator will consider State initiatives and priorities, in light of the goals of the Act, in determining annual work programs for each State. The annual work program represents a State's obligation incurred by acceptance of financial assistance.

(c) Annual guidance for the development of State work programs will be issued by EPA. While this guidance will establish annual national priorities, flexibility will be provided in order to accommodate differing State priorities.

(d) The following documents developed under the State plan shall be included by reference in the annual work program:

(1) Substate solid waste management plans,

(2) Plans for the development of facilities and services, including hazardous waste management facilities and services,

(3) Evidence of actions or steps taken to close or upgrade open dumps.

(e) The annual work program shall allocate the distribution of Federal funds to agencies responsible for the development and implementation of the State plan.

§ 256.06 Definitions.

Terms not defined below have the meanings assigned them by section 1004 of the Act.

"The Act" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.).

"Criteria" means the "Criteria for Classification of Solid Waste Disposal Facilities", 40 CFR Part 257, promulgated under section 4004(a) of the Act.

"Facility" refers to any resource re-
very system or component thereof,
y system, program or facility for re-
urce conservation, and any facility
r collection, source separation, stor-
e, transportation, transfer, process-
g, treatment or disposal of solid
ste, including hazardous waste,
hether such facility is associated
th facilities generating such wastes
not.

"Implementation" means putting
e plan into practice by carrying out
anned activities, including compli-
ce and enforcement activities, or en-
ring such activities are carried out.

"Inactive facility" means a facility
hich no longer receives solid waste.

"Inventory of open dumps" means
e inventory required under section
05(b) and is defined as the list pub-
hed by EPA of those disposal facili-
es which do not meet the criteria.

"Operator" includes facility owners
d operators.

A "permit" is an entitlement to com-
ence and continue operation of a fa-
ity as long as both procedural and
rformance standards are met. The
rm "permit" includes any functional
uivalent such as a registration or li-
nse.

"Planning" includes identifying
oblems, defining objectives, collect-
g information, analyzing alternatives
d determining necessary activities
d courses of action.

"Provide for" in the phrase "the
an shall (should) provide for" means
plain, establish or set forth steps or
urses of action.

The term "shall" denotes require-
ents for the development and imple-
entation of the State plan.

The term "should" denotes recom-
endations for the development and
plementation of the State plan.

"Substate" refers to any public re-
ional, local, county, municipal, or in-
ermunicipal agency, or regional or
cal public (including interstate) solid
r hazardous waste management au-
hority, or other public agency below
he State level.

Subpart B—Identification of Responsibilities; Distribution of Funding

§ 256.10 Requirements.

(a) In accordance with sections 4003(1) and 4006 and the interim guidelines for identification of regions and agencies for solid waste management (40 CFR Part 255), the State plan shall provide for:

(1) The identification of the responsibilities of State and substate (regional, local and interstate) authorities in the development and implementation of the State plan;

(2) The means of distribution of Federal funds to the authorities responsible for development and implementation of the State plan; and

(3) The means for coordinating substate planning and implementation.

(b) Responsibilities shall be identified for the classification of disposal facilities for the inventory of open dumps.

(c) Responsibilities shall be identified for development and implementation of the State regulatory program described in Subpart C of this part.

(d) Responsibilities shall be identified for the development and implementation of the State resource conservation and resource recovery program described in Subpart D of this part.

(e) State, substate and private sector responsibilities shall be identified for the planning and implementation of solid and hazardous waste management facilities and services.

(f) Financial assistance under sections 4008(a) (1) and (2) shall be allocated by the State to State and substate authorities carrying out development and implementation of the State plan. Such allocation shall be based on the responsibilities of the respective parties as determined under section 4006(b).

§ 256.11 Recommendations.

(a) Responsibilities should be identified for each of the solid waste types listed in § 256.02(a)(1).

(b) Responsibilities should be identified for each of the aspects of solid waste management listed in § 256.02(a)(2).

(c) Responsibilities should be identified for planning and designating ground water use with respect to design and operation of solid waste disposal facilities.

(d) Responsibilities should be identified for the development and implementation of the authorized State hazardous waste management program under Subtitle C of the Act.

(e) The State plan should include a schedule and procedure for the continuing review, reassessment and reassignment of responsibilities.

Subpart C—Solid Waste Disposal Programs

§ 256.20 Requirements for State legal authority.

In order to comply with sections 4003 (2) and (3), the State plan shall assure that the State has adequate legal authority to prohibit the establishment of new open dumps and to close or upgrade existing open dumps. The prohibition of the establishment of new open dumps shall take effect no later than six months after the date of promulgation of the criteria or on the date of approval of the State plan, whichever is later.

§ 256.21 Requirements for State regulatory powers.

In order to comply with section 4003(4), the State plan shall provide for the establishment of State regulatory powers. These powers:

(a) Shall be adequate to enforce solid waste disposal standards which are equivalent to or more stringent than the criteria for classification of solid waste disposal facilities (40 CFR Part 257). Such authority shall be as definitive as possible and clearly establish the means for compliance.

(b) Shall include surveillance capabilities necessary to detect adverse environmental effects from solid waste disposal facilities. Such capabilities shall include access for inspection and monitoring by regulatory officials and the authority to establish operator monitoring and reporting requirements.

(c) Shall make use of a permit program which ensures that the establishment of new open dumps is prohibited.

(d) Shall have administrative and judicial enforcement capabilities, including enforceable orders, fines or other administrative procedures, as necessary to ensure compliance.

§ 256.22 Recommendations for State regulatory powers.

In order to assist compliance with section 4003(4), the following are recommendations for State regulatory powers as may be necessary to prohibit new open dumps and close or upgrade all existing open dumps.

(a) Solid waste disposal standards:

(1) Should be based on the health and environmental impacts of disposal facilities.

(2) Should specify design and operational standards.

(3) Should take into account the climatic, geologic, and other relevant characteristics of the State.

(b) Surveillance systems should establish monitoring requirements for facilities.

(1) Every facility should be evaluated for potential adverse health and environmental effects. Based on this evaluation, instrumentation, sampling, monitoring, and inspection requirements should be established.

(2) Every facility which produces leachate in quantities and concentrations that could contaminate ground water in an aquifer should be required to monitor to detect and predict contamination.

(3) Inspectors should be trained and provided detailed instructions for checking on the procedures and conditions that are specified in the engineering plan and site permit. Provisions should be made to ensure chain of custody for evidence.

(c) Facility assessment and prescription of remedial measures should be carried out by adequately trained or experienced professional staff, including engineers and geologists.

(d) The State permit system should provide the administrative control to prohibit the establishment of new open dumps and to assist in meeting the requirement that all wastes be sed or disposed in an environmental- y sound manner.

(1) Permitting procedures for new acilities should require applicants to emonstrate that the facility will omply with the criteria.

(2) The permit system should speci- y, for the facility operator, the loca- ion, design, construction, operational, nonitoring, reporting, completion and naintenance requirements.

(3) Permit procedures should include rovisions to ensure that future use of he property on which the facility is ocated is compatible with that proper- y's use as a solid waste disposal facili- y. These procedures should include dentification of future land use or the nclusion of a stipulation in the prop- rty deed which notifies future pur- hasers of precautions necessitated by he use of the property as a solid vaste disposal facility.

(4) Permits should only be issued to acilities that are consistent with the tate plan, or with substate plans de- eloped under the State plan.

(e) The enforcement system should e designed to include both adminis- rative procedures and judicial reme- ies to enforce the compliance sched- les and closure procedures for open umps.

(1) Permits, surveillance, and en- orcement system capabilities should e designed for supporting court ction.

(2) Detection capabilities and penal- ies for false reporting should be pro- ided for.

256.23 Requirements for closing or upgrading open dumps.

In meeting the requirement of sec- ion 4003(3) for closing or upgrading pen dumps:

(a) The State plan shall provide for he classification of existing solid vaste disposal facilities according to he criteria. This classification shall be ubmitted to EPA, and facilities classi- ied as open dumps shall be published n the inventory of open dumps.

(b) The State plan shall provide for n orderly time-phasing of the dispos- l facility classifications described in aragraph (a) of this section. The de- ermination of priorities for the classification of disposal facilities shall be based upon:

(1) The potential health and environmental impact of the solid waste disposal facility;

(2) The availability of State regulatory and enforcement powers; and

(3) The availability of Federal and State resources for this purpose.

(c) For each facility classified as an open dump the State shall take steps to close or upgrade the facility. Evidence of that action shall be incorporated by reference into the annual work program and be made publicly available. When the State's actions concerning open dumps are modified, the changes shall be referenced in subsequent annual work programs.

(d) In providing for the closure of open dumps the State shall take steps necessary to eliminate health hazards and minimize potential health hazards. These steps shall include requirements for long-term monitoring or contingency plans where necessary.

§ 256.24 Recommendations for closing or upgrading open dumps.

(a) All sources of information available to the State should be used to aid in the classification of facilities. Records of previous inspections and monitoring, as well as new inspections and new monitoring, should be considered.

(b) The steps to close or upgrade open dumps established under § 256.23(c) should be coordinated with the facility needs assessment described in § 256.41.

(c) A determination should be made of the feasibility of resource recovery or resource conservation to reduce the solid waste volume entering a facility classified as an open dump; and feasible measures to achieve that reduction should be implemented.

(d) At the time of classification of existing solid waste disposal facilities pursuant to § 256.23, the State should consider developing appropriate timetables or schedules by which any responsible party can be brought into compliance with the open dumping prohibition pursuant to §§ 256.26 and 256.27.

[44 FR 45079, July 31, 1979, as amended at 46 FR 47051, Sept. 23, 1981]

§ 256.25 Recommendation for inactive facilities.

Inactive facilities that continue to produce adverse health or environmental effects should be evaluated according to the criteria. The State plan should provide for measures to ensure that adverse health or environmental effects from inactive facilities are minimized or eliminated. Such measures may include actions by disposal facility owners and operators, notification of the general public, adjacent residents and other affected parties and notification of agencies responsible for public health and safety.

§ 256.26 Requirement for schedules leading to compliance with the prohibition of open dumping.

In implementing the section 4005(c) prohibition on open dumping, the State plan shall provide that any entity which demonstrates that it has considered other public or private alternatives to comply with the prohibition on open dumping and is unable to utilize such alternatives to so comply, may obtain a timetable or schedule for compliance which specifies a schedule of remedial measures, and an enforceable sequence of actions, leading to compliance within a reasonable time (not to exceed 5 years from the date of publication of the inventory).

§ 256.27 Recommendation for schedules leading to compliance with the prohibition of open dumping.

In reviewing applications for compliance schedules under § 256.26, the State should consider the availability of processing and disposal facilities, the likelihood of environmental damage from disposal at available facilities, the existence of State or substate requirements (including other compliance schedules) applicable to available facilities, cost constraints, existing contractual agreements and other pertinent factors.

Subpart D—Resource Conservation and Resource Recovery Programs

§ 256.30 Requirements.

(a) In order to comply with sections 4003(2) and (6) as they pertain to resource conservation and recovery, the State plan shall provide for a policy and strategy for encouragement of resource recovery and conservation activities.

(b) In order to comply with section 4003(5), the State plan shall provide that no local government within the State is prohibited under State or local law from entering into long-term contracts for the supply of solid waste to resource recovery facilities.

§ 256.31 Recommendations for developing and implementing resource conservation and recovery programs.

(a) In order to encourage resource recovery and conservation, the State plan should provide for technical assistance, training, information development and dissemination, financial support programs, market studies and market development programs.

(b) In order to comply with the requirement of § 256.30(b) regarding long-term contract prohibitions, the State plan should provide for:

(1) Review of existing State and local laws and regulations pertinent to contracting for resource recovery services or facilities.

(2) Reporting of all laws and regulations found to be in violation of this requirement to the executive officer of the administrative agency responsible for the statute.

(3) Development of an administrative order or a revised law or regulation or any other preliminary step for the removal or amending of a law or regulation in violation of this requirement.

(4) Development of a strategy for the consideration of the legislature to prohibit and/or remove from State or local law provisions in violation of this requirement.

(c) The State plan should aid and encourage State procurement of products containing recovered materials in accord with section 6002 of the Act. To

ssist this effort, the State plan
hould provide for:
(1) The development of a policy
tatement encouraging the procure-
ient of recovered materials, wherever
easible;
(2) The identification of the key pur-
hasing agencies of the State, along
rith potential uses of recovered mate-
ials by these agencies; and,
(3) The development of a plan of
ction to promote the use of recovered
naterials through executive order, leg-
slative initiative, or other action that
he State deems necessary.
(d) In order to encourage resource
ecovery and conservation, the State
lan should provide for the elimina-
ion, to the extent possible, of restric-
ions on the purchase of goods or serv-
ces, especially negotiated procure-
nents, for resource recovery facilities.
This should include:
(1) Review of existing State and
ocal laws pertinent to the procure-
nent of equipment and services for
he design, construction and operation
of resource recovery facilities;
(2) Listing of all laws that limit the
ability of localities to negotiate for the
procurement of the design, construc-
ion, or operation of resource recovery
facilities;
(3) Development of administrative
orders or legislation or other action
that would eliminate these restric-
tions; and
(4) Development of a strategy and
plan of action for the consideration of
the legislature for execution of admin-
istrative orders or other action that
would eliminate these restrictions.
(e) The State plan should encourage
the development of resource recovery
and resource conservation facilities
and practices as the preferred means
of solid waste management whenever
technically and economically feasible.
The State plan should provide for the
following activities:
(1) The composition of wastes
should be analyzed with particular em-
phasis on recovery potential for mate-
rial and energy, including fuel value,
percentages of recoverable industrial
wastes, grades of wastepaper, glass,
and non-ferrous and ferrous metals.
(2) Available and potential markets
for recovered materials and energy should be identified, including markets for recoverable industrial wastes; wastepapers; ferrous and non-ferrous metals; glass; solid, liquid, or gaseous fuels; sludges; and tires. The following should be evaluated: location and transportation requirements, materials and energy specifications of user industries, minimum quantity requirements, pricing mechanisms and long-term contract availability.

(3) Resource recovery feasibility studies should be conducted in regions of the State in which uses or markets for recovered materials or energy are identified. These studies should review various technological approaches, environmental considerations, institutional and financial constraints, and economic feasibility.

(4) Source separation, recycling and resource conservation should be utilized whenever technically and economically feasible.

(5) Mixed waste processing facilities for the recovery of energy and materials should be utilized whenever technically and economically feasible.

(6) Source separation, resource conservation and mixed waste processing capacity should be combined to achieve the most effective resource conservation and economic balance.

Subpart E—Facility Planning and Implementation

§ 256.40 Requirements.

In order to comply with section 4003(6), the State plan shall provide for adequate resource conservation, recovery, storage, treatment and disposal facilities and practices necessary to use or dispose of solid and hazardous waste in an environmentally sound manner.

§ 256.41 Recommendations for assessing the need for facilities.

(a) In meeting the requirement for adequate resource conservation, recovery, storage, treatment and disposal facilities and practices, the State plan should provide for an assessment of the adequacy of existing facilities and practices and the need for new or expanded facilities and practices.

(1) The needs assessment should be based on current and projected waste generation rates and on the capacities of presently operating and planned facilities.

(2) Existing and planned resource conservation and recovery practices and their impact on facility needs should be assessed.

(3) Current and projected movement of solid and hazardous waste across State and local boundaries should be assessed.

(4) Special handling needs should be determined for all solid waste categories.

(5) Impact on facility capacities due to predictable changes in waste quantities and characteristics should be estimated.

(6) Environmental, economic, and other constraints on continued operation of facilities should be assessed.

(7) Diversion of wastes due to closure of open dumps should be anticipated.

(8) Facilities and practices planned or provided for by the private sector should be assessed.

(b) The State plan should provide for the identification of areas which require new capacity development, based on the needs assessment.

§ 256.42 Recommendations for assuring facility development.

(a) The State plan should address facility planning and acquisition for all areas which are determined to have insufficient recovery, storage, treatment and disposal capacity in the assessment of facility needs.

(b) Where facilities and practices are found to be inadequate, the State plan should provide for the necessary facilities and practices to be developed by responsible State and substate agencies or by the private sector.

(c) For all areas found to have five or fewer years of capacity remaining, the State plan should provide for:

(1) The development of estimates of waste generation by type and characteristic,

(2) The evaluation and selection of resource recovery, conservation or disposal methods,

(3) Selection of sites for facilities, and

(4) Development of schedules of implementation.

(d) The State plan should encourage private sector initiatives in order to meet the identified facility needs.

(e) In any area having fewer than 2 years of projected capacity, the State plan should provide for the State to take action such as acquiring facilities or causing facilities to be acquired.

(f) The State plan should provide for the initiation and development of environmentally sound facilities as soon as practicable to replace all open dumps.

(g) The State plan should provide for the State, in cooperation with substate agencies, to establish procedures for choosing which facilities will get priority for technical or financial assistance or other emphasis. Highest priority should be given to facilities developed to replace or upgrade open dumps.

(h) The State plan should provide for substate cooperation and policies for free and unrestricted movement of solid and hazardous waste across State and local boundaries.

Subpart F—Coordination With Other Programs

§ 256.50 Requirements.

Section 4003(1) requires the State solid waste managment plan to idenifty means for coordinating regional planning and implementation under the State plan. Section 1006 requires the Administrator to integrate all provisions of this Act (including approval of State plans) with other Acts that grant regulatory authority to the Administrator in order to prevent duplication of administrative and enforcement efforts. In order to meet these requirements:

(a) The State solid waste management plan shall be developed in coordination with Federal, State, and substate programs for air quality, water quality, water supply, waste water treatment, pesticides, ocean protection, toxic substances control, noise control, and radiation control.

(b) The State plan shall provide for coordination with programs under section 208 of the Clean Water Act, as mended (33 U.S.C. 1288). In identify-ng agencies for solid waste manage-ent planning and implementation, he State shall review the solid waste nanagement activities being conduct-d by water quality planning and man-gement agencies designated under ection 208 of the Clean Water Act. Vhere feasible, identification of such gencies should be considered during he identification of responsibilities nder Subpart B of this part. Where olid waste management and water uality agencies are separate entities, ecessary coordination procedures hall be established.

(c) The State plan shall provide for oordination with the National Pollut-nt Discharge Elimination System NPDES) established under section 02 of the Clean Water Act, as amended (33 U.S.C. 1342). The issuance of State facility permits and actions taken to close or upgrade open dumps shall be timed, where practicable, to coordinate closely with the issuance of a new or revised NPDES permit for such facility.

(d) The State plan shall provide for coordination with activities for municipal sewage sludge disposal and utilization conducted under the authority of section 405 of the Clean Water Act, as amended (33 U.S.C. 1345), and with the program for construction grants for publicly owned treatment works under section 201 of the Clean Water Act, as amended (33 U.S.C. 1281).

(e) The State plan shall provide for coordination with State pretreatment activities under section 307 of the Clean Water Act, as amended (33 U.S.C. 1317).

(f) The State plan shall provide for coordination with agencies conducting assessments of the impact of surface impoundments on underground sources of drinking water under the authority of section 1442(a)(8)(C) of the Safe Drinking Water Act (42 U.S.C. 300j-1).

(g) The State plan shall provide for coordination with State underground injection control programs (40 CFR Parts 122, 123, 124, and 146) carried out under the authority of the Safe Drinking Water Act (42 U.S.C. 300f et seq.) and with the designation of sole source aquifers under section 1424 of that Act.

(h) The State plan shall provide for coordination with State implementation plans developed under the Clean Air Act (42 U.S.C. 7401 et seq.; incineration and open burning limitations; and, State implementation plan requirements impacting resource recovery systems).

(i) The State plan shall provide for coordination with the Army Corps of Engineers permit program (or authorized State program) under section 404 of the Clean Water Act, as amended (33 U.S.C. 1344) for dredge and fill activities in waters of the United States.

(j) The State plan shall provide for coordination with the Office of Endangered Species, Department of the Interior, to ensure that solid waste management activities, especially the siting of disposal facilities, do not jeopardize the continued existence of an endangered or threated species nor result in the destruction or adverse modification of a critical habitat.

(k) The State plan shall provide for coordination, where practicable, with programs under:

(1) The Toxic Substances Control Act (15 U.S.C. 2601 et seq.; disposal of chemical substances and mixtures).

(2) The Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 1362 et seq.; disposal and storage of pesticides and pesticide containers).

(3) The Marine Protection, Research and Sanctuaries Act (33 U.S.C. 1420 et seq.; disposal in ocean waters).

(l) The State plan shall provide for coordination, where practicable, with programs of other Federal agencies, including:

(1) Department of the Interior.

(i) Fish and Wildlife Service (wetlands),

(ii) Bureau of Mines and Office of Surface Mining (mining waste disposal and use of sludge in reclamation),

(iii) U.S. Geological Survey (wetlands, floodplains, ground water);

(2) Department of Commerce, National Oceanic and Atmospheric Administration (coastal zone management plans);

(3) Water Resources Council (floodplains, surface and ground waters);

(4) Department of Agriculture, including Soil Conservation Service (land spreading solid waste on food chain croplands);

(5) Federal Aviation Administration (locating disposal facilities on or near airport property);

(6) Department of Housing and Urban Development (701 comprehensive planning program, flood plains mapping);

(7) Department of Defense (development and implementation of State and substate plans with regard to resource recovery and solid waste disposal programs at various installations);

(8) Department of Energy (State energy conservation plans under the Energy Policy and Conservation Act (42 U.S.C. 6321)); and

(9) Other programs.

(m) The State plan shall provide for coordination, where practicable, with solid waste management plans in neighboring States and with plans for Indian reservations in the State.

Subpart G—Public Participation

§ 256.60 Requirements for public participation in State and substate plans.

(a) State and substate planning agencies shall:

(1) Maintain a current list of agencies, organizations, and individuals affected by or interested in the plan, which shall include any parties that request to be on the list, the owner or operator of each facility classified as an open dump and any other parties which the State determines to be affected by or interested in the plan;

(2) Provide depositories of relevant information in one or more convenient locations; and

(3) Prepare a responsiveness summary, in accord with 40 CFR 25.8, where required by this subpart or by an approved public participation work plan, which describes matters on which the public was consulted, summarizes the public's views, and sets forth the agency's response to the public input.

(b) State and substate planning agencies shall provide information and consult with the public on plan development and implementation. Provision of information and consultation shall occur both early in the planning process (including the preparation and distribution of a summary of the proposed plan) and on major policy decisions made during the course of plan development, revision and implementation. To meet this requirement, planning agencies shall:

(1) Publicize information in news media having broad audiences in the geographic area;

(2) Place information in depositories maintained under paragraph (a)(2) of this section;

(3) Send information directly to agencies, organizations and individuals on the list maintained under paragraph (a)(1) of this section; and

(4) Prepare and make available to the public a responsiveness summary in accord with 40 CFR 25.8.

(c) State and substate planning agencies shall conduct public hearings (and public meetings, where the agency determines there is sufficient interest) in accord with 40 CFR 25.5 and 25.6. The purpose of the hearings and meetings is to solicit reactions and recommendations from interested or affected parties and to explain major issues within the proposed plan. Following the public hearings, a responsiveness summary shall be prepared and made available to the public in accord with 40 CFR 25.8.

[44 FR 45079, July 31, 1979, as amended at 46 FR 47051, Sept. 23, 1981]

§ 256.61 Requirements for public participation in the annual State work program.

(a) A public participation work plan in accord with 40 CFR 25.11 shall be included in the annual State work program.

(b) The State shall consult with the public in the development of the annual work program. One month prior to submission of the draft work program to the Regional Administrator, as required by 40 CFR Part 35, the draft work program shall be made available to the public at the State information depositories maintained under § 256.60(a)(2). The public shall be notified of the availability of the draft work program, and a public meeting shall be held if the planning

ncy determines there is sufficient
erest.
c) The State shall comply with the
uirements of Office of Manage-
nt and Budget Circular No. A-95.
d) Copies of the final work program
ll be placed in the State informa-
n depositories maintained under
56.60(a)(2).

**56.62 Requirements for public partici-
pation in State regulatory development.**

a) The State shall conduct public
arings (and public meetings where
e State determines there is suffi-
nt interest) on State legislation and
ulations, in accord with the State
ministrative procedures act, to solic-
reactions and recommendations. Fol-
wing the public hearings, a respon-
eness summary shall be prepared
d made available to the public in
cord with 40 CFR 25.8.
b) In advance of the hearings and
eetings required by paragraph (a) of
is section, the State shall prepare a
ct sheet on proposed regulations or
gislation, mail the fact sheet to agen-
es, organizations and individuals on
e list maintained under
256.60(a)(1) and place the fact sheet
the State information depositories
aintained under § 256.60(a)(2).

**256.63 Requirements for public partici-
pation in the permitting of facilities.**

(a) Before approving a permit appli-
ation (or renewal of a permit) for a
esource recovery or solid waste dis-
osal facility the State shall hold a
ublic hearing to solicit public reac-
on and recommendations on the pro-
osed permit application if the State
etermines there is a significant
egree of public interest in the pro-
osed permit.
(b) This hearing shall be held in
ccord with 40 CFR 25.5.

**256.64 Requirements for public partici-
pation in the open dump inventory.**

(a) The State shall provide an oppor-
unity for public participation prior to
ubmission of any classification of a
acility as an open dump to the Feder-
l Government. The State shall ac-
omplish this by providing notice as
pecified in § 256.64(b) or by using
ther State administrative procedures which provide equivalent public participation.

(b) The State may satisfy the requirement of § 256.64(a) by providing written notice of the availability of the results of its classifications to all parties on the list required under § 256.60(a)(1) at least 30 days before initial submission of these classifications to the Federal Government. For those parties on the list required under § 256.60(a)(1) who are owners or operators of facilities classified as open dumps, such notice shall indicate that the facility has been so classified.

[46 FR 47052, Sept. 23, 1981]

§ 256.65 Recommendations for public participation.

(a) State and substate planning agencies should establish an advisory group, or utilize an existing group, to provide recommendations on major policy and program decisions. The advisory group's membership should reflect a balanced viewpoint in accord with 40 CFR 25.7(c).

(b) State and substate planning agencies should develop public education programs designed to encourage informed public participation in the development and implementation of solid waste management plans.

[44 FR 45079, July 31, 1979. Redesignated and amended at 46 FR 47052, Sept. 23, 1981]

PART 257—CRITERIA FOR CLASSIFICATION OF SOLID WASTE DISPOSAL FACILITIES AND PRACTICES

Sec.

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APPENDIX I
APPENDIX II

AUTHORITY: Secs. 1008(a)(3) and 4004(a), Pub. L. 94-580, 90 Stat. 2803 and 2815 (42 U.S.C. 6907(a)(3) and 6944(a)); sec. 405(d), Pub. L. 95-217, 91 Stat. 1606 (33 U.S.C. 1345(d)).

SOURCE: 44 FR 53460, Sept. 13, 1979, unless otherwise noted.

§ 257.1 Scope and purpose.

(a) These criteria are for use under the Resource Conservation and Recovery Act (the Act) in determining which solid waste disposal facilities and practices pose a reasonable probability of adverse effects on health or the environment. Unless otherwise provided, these criteria are adopted for purposes of both sections 1008(a)(3) and 4004(a) of the Act.

(1) Facilities failing to satisfy criteria adopted for purposes of section 4004(a) will be considered open dumps for purposes of State solid waste management planning under the Act.

(2) Practices failing to satisfy criteria adopted for purposes of section 1008(a)(3) constitute open dumping, which is prohibited under section 4005 of the Act.

(b) These criteria also provide guidelines for sludge utilization and disposal under section 405(d) of the Clean Water Act, as amended. To comply with section 405(e) the owner or operator of any publicly owned treatment works must not violate these criteria in the disposal of sludge on the land.

(c) These criteria apply to all solid waste disposal facilities and practices with the following exceptions:

(1) The criteria do not apply to agricultural wastes, including manures and crop residues, returned to the soil as fertilizers or soil conditioners.

(2) The criteria do not apply to overburden resulting from mining operations intended for return to the mine site.

(3) The criteria do not apply to the land application of domestic sewage or treated domestic sewage. The criteria do apply to disposal of sludges generated by treatment of domestic sewage.

(4) The criteria do not apply to the location and operation of septic tanks. The criteria do, however, apply to the disposal of septic tank pumpings.

(5) The criteria do not apply to solid or dissolved materials in irrigation return flows.

(6) The criteria do not apply to industrial discharges which are point sources subject to permits under section 402 of the Clean Water Act, as amended.

(7) The criteria do not apply to source, special nuclear or byproduct material as defined by the Atomic Energy Act, as amended (68 Stat. 923).

(8) The criteria do not apply to hazardous waste disposal facilities which are subject to regulation under Subtitle C of the Act.

(9) The criteria do not apply to disposal of solid waste by underground well injection subject to the regulations (40 CFR Part 146) for the Underground Injection Control Program (UICP) under the Safe Drinking Water Act, as amended, 42 U.S.C. 3007 et seq.

[44 FR 53460, Sept. 13, 1979, as amended at 46 FR 47052, Sept. 23, 1981]

§ 257.2 Definitions.

The definitions set forth in section 1004 of the Act apply to this part. Special definitions of general concern to this part are provided below, and definitions especially pertinent to particular sections of this part are provided in those sections.

"*Disposal*" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

"*Facility*" means any land and appurtenances thereto used for the disposal of solid wastes.

"*Leachate*" means liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials removed from such wastes.

"*Open dump*" means a facility for the disposal of solid waste which does not comply with this part.

"*Practice*" means the act of disposal of solid waste.

"*Sanitary landfill*" means a facility for the disposal of solid waste which complies with this part.

"*Sludge*" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect.

"*Solid waste*" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

"*State*" means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

[44 FR 53460, Sept. 13, 1979; 44 FR 58910, Oct. 12, 1979]

§ 257.3 Criteria for classification of solid waste disposal facilities and practices.

Solid waste disposal facilities or practices which violate any of the following criteria pose a reasonable probability of adverse effects on health or the environment:

§ 257.3-1 Floodplains.

(a) Facilities or practices in floodplains shall not restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste, so as to pose a hazard to human life, wildlife, or land or water resources.

(b) As used in this section:

(1) "Based flood" means a flood that has a 1 percent or greater chance of recurring in any year or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

(2) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, which are inundated by the base flood.

(3) "Washout" means the carrying away of solid waste by waters of the base flood.

[44 FR 53460, Sept. 13, 1979; 44 FR 54708, Sept. 21, 1979]

§ 257.3-2 Endangered species.

(a) Facilities or practices shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife.

(b) The facility or practice shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 CFR Part 17.

(c) As used in this section:

(1) "Endangered or threatened species" means any species listed as such pursuant to section 4 of the Endangered Species Act.

(2) "Destruction or adverse modification" means a direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(3) "Taking" means harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting or attempting to engage in such conduct.

§ 257.3-3 Surface water.

(a) For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of pollutants into waters of the United States that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water Act, as amended.

(b) For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of dredged material or fill material to waters of the United States that is in violation of the requirements under section 404 of the Clean Water Act, as amended.

(c) A facility or practice shall not cause non-point source pollution of waters of the United States that violates applicable legal requirements implementing an areawide or Statewide water quality management plan that has been approved by the Administrator under section 208 of the Clean Water Act, as amended.

(d) Definitions of the terms "Discharge of dredged material", "Point source", "Pollutant", "Waters of the United States", and "Wetlands" can be found in the Clean Water Act, as amended, 33 U.S.C. 1251 et seq., and implementing regulations, specifically 33 CFR Part 323 (42 FR 37122, July 19, 1977).

[44 FR 53460, Sept. 13, 1979, as amended at 46 FR 47052, Sept. 23, 1981]

§ 257.3-4 Ground water.

(a) A facility or practice shall not contaminate an underground drinking water source beyond the solid waste boundary or beyond an alternative boundary specified in accordance with paragraph (b) of this section.

(b)(1) For purposes of section 1008(a)(3) of the Act or section 405(d) of the CWA, a party charged with open dumping or a violation of section 405(e) may demonstrate that compliance should be determined at an alternative boundary in lieu of the solid waste boundary. The court shall establish such an alternative boundary only if it finds that such a change would not result in contamination of ground water which may be needed or used for human consumption. This finding shall be based on analysis and consideration of all of the following factors that are relevant:

(i) The hydrogeological characteristics of the facility and surrounding land, including any natural attenuation and dilution characteristics of the aquifer;

(ii) The volume and physical and chemical characteristics of the leachate;

(iii) The quantity, quality, and direction of flow of ground water underlying the facility;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The availability of alternative drinking water supplies;

(vi) The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water;

(vii) Public health, safety, and welfare effects.

(2) For purposes of sections 4004(a) and 1008(a)(3), the State may establish an alternative boundary for a facility to be used in lieu of the solid waste boundary only if it finds that such a change would not result in the contamination of ground water which may be needed or used for human consumption. Such a finding shall be based on an analysis and consideration of all of the factors identified in paragraph (b)(1) of this section that are relevant.

(c) As used in this section:

(1) "Aquifer" means a geologic formation, group of formations, or portion of a formation capable of yielding usable quantities of ground water to wells or springs.

(2) "Contaminate" means introduce a substance that would cause:

(i) The concentration of that substance in the ground water to exceed the maximum contaminant level specified in Appendix I, or

(ii) An increase in the concentration of that substance in the ground water where the existing concentration of that substance exceeds the maximum contaminant level specified in Appendix I.

(3) "Ground water" means water below the land surface in the zone of saturation.

(4) "Underground drinking water source" means:

(i) An aquifer supplying drinking water for human consumption, or

(ii) An aquifer in which the ground water contains less than 10,000 mg/l total dissolved solids.

(5) "Solid waste boundary" means the outermost perimeter of the solid waste (projected in the horizontal plane) as it would exist at completion of the disposal activity.

[44 FR 53460, Sept. 13, 1979, as amended at 46 FR 47052, Sept. 23, 1981]

§ 257.3-5 Application to land used for the production of food-chain crops (interim final).

(a) *Cadmium.* A facility or practice concerning application of solid waste to within one meter (three feet) of the surface of land used for the production of food-chain crops shall not exist or occur, unless in compliance with all requirements of paragraphs (a)(1) (i) through (iii) of this section or all requirements of paragraphs (a)(2) (i) through (iv) of this section.

(1)(i) The pH of the solid waste and soil mixture is 6.5 or greater at the time of each solid waste application, except for solid waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less.

(ii) The annual application of cadmium from solid waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables or root crops grown for human consumption. For other food-chain crops, the annual cadmium application rate does not exceed:

Time period	Annual Cd application rate (kg/ha)
Present to June 30, 1984	2.0
July 1, 1984 to December 31, 1986	1.25
Beginning January 1, 1987	0.5

(iii) The cumulative application of cadmium from solid waste does not exceed the levels in either paragraph (a)(1)(iii)(A) or (B) of this section.

(A)

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Background soil pH less than 6.5	Background soil pH more than 6.5
Less than 5	5	5
5 to 15	5	10
More than 15	5	20

(B) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below: *Provided,* That the pH of the solid waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food-chain crops are grown.

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5
5 to 15	10
More than 15	20

(2)(i) The only food-chain crop produced is animal feed.

(ii) The pH of the solid waste and soil mixture is 6.5 or greater at the time of solid waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food-chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received solid waste at high cadmium application rates and that food-chain crops should not be grown, due to a possible health hazard.

(b) *Polychlorinated Biphenyls (PCBs).* Solid waste containing concentrations of PCBs equal to or greater than 10 mg/kg (dry weight) is incorporated into the soil when applied to land used for producing animal feed, including pasture crops for animals raised for milk Incorporation of the solid waste into the soil is not required if it is assured that the PCB content is less than 0.2 mg/kg (actual weight) in animal feed or less than 1.5 mg/kg (fat basis) in milk.

(c) As used in this section:

(1) "Animal feed" means any crop grown for consumption by animals, such as pasture crops, forage, and grain.

(2) "Background soil pH" means the pH of the soil prior to the addition of

substances that alter the hydrogen ion concentration.

(3) "Cation exchange capacity" means the sum of exchangeable cations a soil can absorb expressed in milli-equivalents per 100 grams of soil as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the summation method for distinctly acid soils or the sodium acetate method for neutral, calcareous or saline soils ("Methods of Soil Analysis, Agronomy Monograph No. 9." C. A. Black, ed., American Society of Agronomy, Madison, Wisconsin. pp 891-901, 1965).

(4) "Food-chain crops" means tobacco, crops grown for human consumption, and animal feed for animals whose products are consumed by humans.

(5) "Incorporated into the soil" means the injection of solid waste beneath the surface of the soil or the mixing of solid waste with the surface soil.

(6) "Pasture crops" means crops such as legumes, grasses, grain stubble and stover which are consumed by animals while grazing.

(7) "pH" means the logarithm of the reciprocal of hydrogen ion concentration.

(8) "Root crops" means plants whose edible parts are grown below the surface of the soil.

(9) "Soil pH" is the value obtained by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the electrometric method. ("Methods of Soil Analysis, Agronomy Monograph No. 9," C.A. Black, ed., American Society of Agronomy, Madison, Wisconsin, pp. 914-926, 1965.)

[44 FR 53460, Sept. 13, 1979; 44 FR 54708, Sept. 21, 1979]

§ 257.3-6 Disease.

(a) *Disease Vectors.* The facility or practice shall not exist or occur unless the on-site population of disease vectors is minimized through the periodic application of cover material or other techniques as appropriate so as to protect public health.

(b) *Sewage sludge and septic tank pumpings (Interim Final).* A facility or practice involving disposal of sewage sludge or septic tank pumpings shall not exist or occur unless in compliance with paragraphs (b) (1), (2) or (3) of this section.

(1) Sewage sludge that is applied to the land surface or is incorporated into the soil is treated by a Process to Significantly Reduce Pathogens prior to application or incorporation. Public access to the facility is controlled for at least 12 months, and grazing by animals whose products are consumed by humans is prevented for at least one month. Processes to Significantly Reduce Pathogens are listed in Appendix II, Section A. (These provisions do not apply to sewage sludge disposed of by a trenching or burial operation.)

(2) Septic tank pumpings that are applied to the land surface or incorporated into the soil are treated by a Process to Significantly Reduce Pathogens (as listed in Appendix II, Section A), prior to application or incorporation, unless public access to the facility is controlled for at least 12 months and unless grazing by animals whose products are consumed by humans is prevented for at least one month. (These provisions do not apply to septic tank pumpings disposed of by a trenching or burial operation.)

(3) Sewage sludge or septic tank pumpings that are applied to the land surface or are incorporated into the soil are treated by a Process to Further Reduce Pathogens, prior to application or incorporation, if crops for direct human consumption are grown within 18 months subsequent to application or incorporation. Such treatment is not required if there is no contact between the solid waste and the edible portion of the crop; however, in this case the solid waste is treated by a Process to Significantly Reduce Pathogens, prior to application; public access to the facility is controlled for at least 12 months; and grazing by animals whose products are consumed by humans is prevented for at least one month. If crops for direct human consumption are not grown within 18 months of application or incorporation, the requirements of paragraphs (b) (1) and (2) of this section apply. Processes to Further Reduce Patho-

gens are listed in Appendix II, Section B.

(c) As used in this section:

(1) "Crops for direct human consumption" means crops that are consumed by humans without processing to minimize pathogens prior to distribution to the consumer.

(2) "Disease vector" means rodents, flies, and mosquitoes capable of transmitting disease to humans.

(3) "Incorporated into the soil" means the injection of solid waste beneath the surface of the soil or the mixing of solid waste with the surface soil.

(4) "Periodic application of cover material" means the application and compaction of soil or other suitable material over disposed solid waste at the end of each operating day or at such frequencies and in such a manner as to reduce the risk of fire and to impede vectors access to the waste.

(5) "Trenching or burial operation" means the placement of sewage sludge or septic tank pumpings in a trench or other natural or man-made depression and the covering with soil or other suitable material at the end of each operating day such that the wastes do not migrate to the surface.

[44 FR 53460, Sept. 13, 1979; 44 FR 54708, Sept. 21, 1979]

§ 257.3-7 Air.

(a) The facility or practice shall not engage in open burning of residential, commercial, institutional or industrial solid waste. This requirement does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, diseased trees, debris from emergency clean-up operations, and ordnance.

(b) For purposes of section 4004(a) of the Act, the facility shall not violate applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the Administrator pursuant to section 110 of the Clean Air Act, as amended.

(c) As used in this section "open burning" means the combustion of solid waste without (1) control of combustion air to maintain adequate temperature for efficient combustion, (2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and (3) control of the emission of the combustion products.

[44 FR 53460, Sept. 13, 1979; 44 FR 54708, Sept. 21, 1979, as amended at 46 FR 47052, Sept. 23, 1981]

§ 257.3-8 Safety.

(a) *Explosive gases.* The concentration of explosive gases generated by the facility or practice shall not exceed:

(1) Twenty-five percent (25%) of the lower explosive limit for the gases in facility structures (excluding gas control or recovery system components); and

(2) The lower explosive limit for the gases at the property boundary.

(b) *Fires.* A facility or practice shall not pose a hazard to the safety of persons or property from fires. This may be accomplished through compliance with § 257.3-7 and through the periodic application of cover material or other techniques as appropriate.

(c) *Bird hazards to aircraft.* A facility or practice disposing of putrescible wastes that may attract birds and which occurs within 10,000 feet (3,048 meters) of any airport runway used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway used by only piston-type aircraft shall not pose a bird hazard to aircraft.

(d) *Access.* A facility or practice shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site.

(e) As used in this section:

(1) "Airport" means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

(2) "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(3) "Explosive gas" means methane (CH_4).

(4) "Facility structures" means any buildings and sheds or utility or drainage lines on the facility.

(5) "Lower explosive limit" means the lowest percent by volume of a mixture of explosive gases which will propagate a flame in air at 25°C and atmospheric pressure.

(6) "Periodic application of cover material" means the application and compaction of soil or other suitable material over disposed solid waste at the end of each operating day or at such frequencies and in such a manner as to reduce the risk of fire and to impede disease vectors' access to the waste.

(7) "Putrescible wastes" means solid waste which contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of attracting or providing food for birds.

§ 257.4 Effective date.

These criteria become effective October 15, 1979.

APPENDIX I

The maximum contaminant levels promulgated herein are for use in determining whether solid waste disposal activities comply with the ground-water criteria (§ 257.3-4). Analytical methods for these contaminants may be found in 40 CFR Part 141 which should be consulted in its entirety.

1. *Maximum contaminant levels for inorganic chemicals.* The following are the maximum levels of inorganic chemicals other than fluoride:

Contaminant	Level (milligrams per liter)
Arsenic	0.05
Barium	1
Cadmium	0.010
Chromium	0.05
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05

The maximum contaminant levels for fluoride are:

Temperature [1] degrees Fahrenheit	Degrees Celsius	Level (milligrams per liter)
53.7 and below	12 and below	2.4
53.8 to 58.3	12.1 to 14.6	2.2
58.4 to 63.8	14.7 to 17.6	2.0
63.9 to 70.6	17.7 to 21.4	1.8
70.7 to 79.2	21.5 to 26.2	1.6
79.3 to 90.5	26.3 to 32.5	1.4

[1] Annual average of the maximum daily air temperatur

2. *Maximum contaminant levels for organic chemicals.* The following are the maximum contaminant levels for organic chemicals:

	Level (milligrams per liter)
(a) Chlorinated hydrocarbons:	
Endrin (1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-Hexachlorocyclohexane, gamma isomer	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenyl) ethane)	0.1
Toxaphene ($C_{10}H_{10}Cl_8$-Technical chlorinated camphene, 67 to 69 percent chlorine)	0.005
(b) Chlorophenoxys:	
2,4-D (2,4-Dichlorophenoxy-acetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophen- oxy-propionic acid)	0.01

3. *Maximum microbiological contaminant levels.* The maximum contaminant level for coliform bacteria from any one well is as follows:

(a) using the membrane filter technique:

(1) Four coliform bacteria per 100 milliliters if one sample is taken, or

(2) Four coliform bacteria per 100 milliliters in more than one sample of all the samples analyzed in one month.

(b) Using the five tube most probable number procedure, (the fermentation tube method) in accordance with the analytical recommendations set forth in "Standard Methods for Examination of Water and Waste Water", American Public Health Association, 13th Ed. pp. 662-688, and using a Standard sample, each portion being one fifth of the sample:

(1) If the standard portion is 10 milliliters, coliform in any five consecutive samples from a well shall not be present in three or more of the 25 portions, or

(2) If the standard portion is 100 milliliters, coliform in any five consecutive samples from a well shall not be present in five portions in any of five samples or in more than fifteen of the 25 portions.

4. *Maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity.* The following are the maximum contaminant levels for radium-

226, radium-228, and gross alpha particle radioactivity:

(a) Combined radium-226 and radium-228—5 pCi/l;

(b) Gross alpha particle activity (including radium-226 but excluding radon and uranium)—15 pCi/l.

APPENDIX II

A. Processes to Significantly Reduce Pathogens

Aerobic digestion: The process is conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from 60 days at 15° C to 40 days at 20° C, with a volatile solids reduction of at least 38 percent.

Air Drying: Liquid sludge is allowed to drain and/or dry on under-drained sand beds, or paved or unpaved basins in which the sludge is at a depth of nine inches. A minimum of three months is needed, two months of which temperatures average on a daily basis above 0° C.

Anaerobic digestion: The process is conducted in the absence of air at residence times ranging from 60 days at 20° C to 15 days at 35° to 55° C, with a volatile solids reduction of at least 38 percent.

Composting: Using the within-vessel, static aerated pile or windrow composting methods, the solid waste is maintained at minimum operating conditions of 40° C for 5 days. For four hours during this period the temperature exceeds 55° C.

Lime Stabilization: Sufficient lime is added to produce a pH of 12 after 2 hours of contact.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

B. Processes to Further Reduce Pathogens

Composting: Using the within-vessel composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the static aerated pile composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the windrow composting method, the solid waste attains a temperature of 55° C or greater for at least 15 days during the composting period. Also, during the high temperature period, there will be a minimum of five turnings of the windrow.

Heat drying: Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent or lower. Sludge particles reach temperatures well in excess of 80° C, or the wet bulb temperature of the gas stream in contact with the sludge at the point where it leaves the dryer is in excess of 80° C.

Heat treatment: Liquid sludge is heated to temperatures of 180° C for 30 minutes.

Thermophilic Aerobic Digestion: Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55–60° C, with a volatile solids reduction of at least 38 percent.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Any of the processes listed below, if added to the processes described in Section A above, further reduce pathogens. Because the processes listed below, on their own, do not reduce the attraction of disease vectors, they are only add-on in nature.

Beta ray irradiation: Sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Gamma ray irradiation: Sludge is irradiated with gamma rays from certain isotopes, such as ^{60}Cobalt and ^{137}Cesium, at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Pasteurization: Sludge is maintained for at least 30 minutes at a minimum temperature of 70° C.

Other methods: Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above add-on methods.

PART 259—STANDARDS FOR THE TRACKING AND MANAGEMENT OF MEDICAL WASTE

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APPENDIX IV TO PART 259 RECOMMENDED MEDICAL WASTE TRANSPORTER NOTIFICATION FORM AND INSTRUCTIONS

AUTHORITY: 42 U.S.C. 6912, 6992 *et seq.*

SOURCE: 54 FR 12371, Mar. 24, 1989, unless otherwise noted.

Subpart A—General

§ 259.1 Purpose, scope, and applicability.

(a) The purpose of this part is to establish a demonstration program for tracking medical waste shipments pursuant to the Medical Waste Tracking Act of 1988.

(b) The regulations in this part apply to regulated medical waste as defined in Subpart D of this part that is generated in a Covered State as defined in Subpart C of this part.

(c) Generators, transporters, and owners or operators of intermediate handling facilities (e.g., treatment or destruction facilities) or destination facilities (e.g., disposal facilities) who transport, offer for transport, or otherwise manage regulated medical waste generated in a Covered State must comply with this part even if such transport or management occurs in a non-Covered State.

(d) *Regulatory presumptions.* The transportation and management of regulated medical waste, as defined in Subpart D of this part, in a Covered State is subject to regulations under this part, unless a person claiming a non-regulated status can demonstrate by a preponderance of the evidence, through shipping papers or other documentation, that the regulated medical waste was generated in a non-Covered State.

§ 259.2 Effective dates and duration of the demonstration program.

(a) Except for records and reports required to be maintained or submitted under this part, the demonstration program will be effective for the period June 22, 1989, to June 22, 1991.

(b) The length of time parties must keep records required under this part is automatically extended in the case where EPA or a State initiates an enforcement action, for which those records are relevant, until the conclusion of the enforcement action.

Subpart B—Definitions

§ 259.10 Definitions.

(a) For the purposes of this part, all of the terms defined in 40 CFR 260.10 are hereby incorporated by reference, except for the following terms, which have been redefined as appropriate to address the management of medical waste specifically:

"Facility" means all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, destroying, storing, or disposing of regulated medical waste. A facility may consist of several treatment, destruction, storage, or disposal operational units.

"Generator" means any person, by site, whose act or process produces regulated medical waste as defined in Subpart D of this part, or whose act first causes a regulated medical waste to become subject to regulation. In the case where more than one person (e.g., doctors with separate medical practices) are located in the same building, each individual business entity is a separate generator for the purposes of this part.

"Landfill" means a disposal facility or part of a facility where regulated medical waste is placed in or on the land and which is not a land treatment facility, a surface impoundment, or an injection well.

"Person" means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, any interstate body, or any department, agency or instrumentality of the United States.

"Solid waste" means a solid waste defined in Section 1004 (27) of RCRA.

"Storage" means the temporary holding of regulated medical wastes at a designated accumulation area before treatment, disposal, or transport to another location.

"Transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of regulated medical waste are held (come to rest or are managed) during the course of transportation. For example, a location at which regulated medical waste is transferred directly between two vehicles is considered a transfer facility. A transfer facility is a "transporter".

"Transportation" means the shipment or conveyance of regulated medical waste by air, rail, highway, or water.

"Transporter" means a person engaged in the off-site transportation of regulated medical waste by air, rail, highway, or water.

"Treatment" when used in the context of medical waste management means any method, technique, or process designed to change the biological character or composition of any regulated medical waste so as to reduce or eliminate its potential for causing disease. When used in the context of § 259.30(a) of this part, treatment means either the provision of medical services or the preparation of human or animal remains for interment or cremation.

(b) In addition, when used in this part, the following terms have the meanings given below:

"Biologicals" means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing or treating humans or animals or in research pertaining thereto.

"Blood products" means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

"Body fluids" means liquid emanating or derived from humans and limited to blood; cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

"Central collection point" means a location where a generator consolidates regulated medical waste brought together from original generation points prior to its transport off-site or its treatment on-site (e.g., incineration).

"Covered States" means those States that are participating in the Demonstration Medical Waste Tracking Program and includes: Connecticut; Louisiana; New Jersey; New York; Rhode Island; Puerto Rico; and the District of Columbia. Any other State is a Non-Covered State.

"Decontamination" means the process of reducing or eliminating the presence of harmful substances, such as infectious agents, so as to reduce the likelihood of disease transmission from those substances.

"Destination facility" means the disposal facility, the incineration facility, or the facility that both treats and destroys regulated medical waste, to which a consignment of such is intended to be shipped, specified in Box 8 of the Medical Waste Tracking Form.

"Destroyed regulated medical waste" means regulated medical waste that has been ruined, torn apart, or mutilated through processes such as thermal treatment, melting, shredding, grinding, tearing or breaking, so that it is no longer generally recognizable as medical waste. It does not mean compaction.

"Destruction facility" means a facility that destroys regulated medical waste by ruining or mutilating it, or tearing it apart.

"Infectious agent" means any organism (such as a virus or a bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

"Intermediate handler" is a facility that either treats regulated medical waste or destroys regulated medical waste but does not do both. The term, as used in this Part, does not include transporters.

"Laboratory" means any research, analytical, or clinical facility that performs health care related analysis or service. This includes medical, pathological, pharmaceutical, and other research, commercial, or industrial laboratories.

"Medical waste" means any solid waste which is generated in the diagnosis, treatment (e.g., provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. The term does not include any hazardous waste identified or listed under Part 261 of this chapter or any household waste as defined in § 261.4(b)(I) of this chapter.

NOTE TO THIS DEFINITION: Mixtures of hazardous waste and medical waste are subject to this part except as provided in § 259.31.

"Original generation point" means the location where regulated medical waste is generated. Waste may be taken from original generation points to a central collection point prior to off-site transport or on-site treatment.

"Oversized regulated medical waste" means medical waste that is too large to be placed in a plastic bag or standard container.

"Regulated medical waste" means those medical wastes that have been listed in § 259.30(a) of this part and that must be managed in accordance with the requirements of this part.

"Tracking form" means the Federal Medical Waste Tracking Form that must accompany all applicable shipments of regulated medical wastes generated within one of the Covered States.

"Treated regulated medical waste" means regulated medical waste that has been treated to substantially reduce or eliminates its potential for causing disease, but has not yet been destroyed.

"Universal biohazard symbol" means the symbol design that conforms to the design shown in 29 CFR 1910.145(f)(8)(ii).

"Untreated regulated medical waste" means regulated medical waste that has not been treated to substantially reduce or eliminate its potential for causing disease.

"Waste category" means either untreated regulated medical waste or treated regulated medical waste.

[54 FR 12371, Mar. 24, 1989, as amended at 54 FR 24311, June 6, 1989]

Subpart C—Covered States

§ 259.20 States included in the demonstration program.

(a) The regulations of this part apply to Regulated Medical Waste that is generated in any Covered State.

(b) For purposes of this part, Covered States are the States of Connecticut, Louisiana, New Jersey, New York, Rhode Island, Puerto Rico, and the District of Columbia.

[54 FR 24311, June 6, 1989]

Subpart D—Regulated Medical Waste

§ 259.30 Definition of regulated medical waste.

(a) A regulated medical waste is any solid waste, defined in § 259.10(a) of this part, generated in the diagnosis, treatment, (e.g., provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, that is not excluded or exempted under paragraph (b) of this section, and that is listed in the following table:

Note to paragraph (a): The term "solid waste" includes solid, semisolid, or liquid materials, but does not include domestic sewage materials identified in § 261.4(a)(1) of this subchapter.

TABLE—REGULATED MEDICAL WASTE

Waste class	Description
(1) Cultures and Stocks.	Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
(2) Pathological Wastes.	Human pathological wastes, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.
(3) Human Blood and Blood Products.	(1) Liquid waste human blood; (2) products of blood; (3) items saturated and/or dripping with human blood; or (4) items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category.
(4) Sharps	Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.
(5) Animal Waste	Contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals, or testing of pharmaceuticals.
(6) Isolation Wastes	Biological waste and discarded materials contaminated with blood, excretion, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.
(7) Unused Sharps	The following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

(b)(1) *Exclusions.* (i) Hazardous waste identified or listed under the regulations in Part 261 of this chapter is not regulated medical waste.

Note to paragraph (b)(1)(i): Mixtures of regulated medical waste and hazardous waste are subject to Part 259, except as provided in § 259.31(b) of this subpart.

(ii) Household waste, as defined in § 261.4(b)(1) of this Chapter, is not regulated medical waste.

(iii) Ash from incineration of regulated medical waste is not regulated medical waste once the incineration process has been completed.

(iv) Residues from treatment and destruction processes are no longer regulated medical waste once the waste has been both treated and destroyed.

(v) Human corpses, remains, and anatomical parts that are intended for interment or cremation are not regulated medical waste.

(2) *Exemptions.* (i) Etiologic agents being transported interstate pursuant to the requirements of the U.S. De-

partment of Transportation, U.S. Department of Health and Human Services, and all other applicable shipping requirements are exempt from the requirements of this part.

(ii) Samples of regulated medical waste transported off-site by EPA- or State-designated enforcement personnel for enforcement purposes are exempt from the requirements of this Part during the enforcement proceeding.

§ 259.31 Mixtures.

(a) Except as provided in paragraph (b) of this section, mixtures of solid waste and regulated medical waste listed in § 259.30(a) of this subpart are a regulated medical waste.

(b) Mixtures of hazardous waste identified or listed in Part 261 of this chapter and regulated medical waste listed in § 259.30(a) of this subpart are subject to the requirements in this part, unless the mixture is subject to the hazardous waste manifest requirements in Part 262 or Part 266 of this chapter.

NOTE TO PARAGRAPH (b): Mixtures of regulated medical waste with hazardous waste that is exempt from the hazardous waste manifest requirements (e.g., under 40 CFR 261.5) remain subject to this Part.

Subpart E—Pre-Transport Requirements

§ 259.39 Applicability.

Generators must comply with the requirements of this subpart prior to shipping waste off-site, and generators must comply with § 259.42 of this Subpart for on-site storage. Transporters, intermediate handlers (e.g., treatment or destruction facilities), and destination facilities must comply with applicable requirements of this subpart, when specified in Subparts H or I of this part.

§ 259.40 Segregation requirements.

(a)(1) Generators must segregate regulated medical waste intended for transport off-site to the extent practicable prior to placement in containers according to paragraph (a)(2) of this section.

(2) Generators must segregate regulated medical waste into sharps (Classes 4 and 7 of § 259.30(a) of this subpart including sharps containing residual fluid), fluids (quantities greater than 20 cubic centimeters), and other regulated medical waste.

(b) If other waste is placed in the same container(s) as regulated medical waste, then the generator must package, label, and mark the container(s) and its entire contents according to the requirements in §§ 259.41, 259.44, and 259.45 of this part.

§ 259.41 Packaging requirements.

Generators must ensure that all regulated medical wastes meet the following requirements before transporting or offering for transport such waste off-site. Generators may use one or more containers to meet these requirements.

(a) Generators must ensure that all regulated medical waste is placed in a container or containers that are:

(1) Rigid;

(2) Leak-resistant;

(3) Impervious to moisture;

(4) Has a strength sufficient to prevent tearing or bursting under normal conditions of use and handling; and

(5) Sealed to prevent leakage during transport.

(b)(1) In addition to the requirements of paragraph (a) of this section, generators must package sharps and sharps with residual fluids in packaging that is puncture-resistant.

(2) In addition to the requirements of paragraph (a) of this section, generators must package fluids (quantities greater than 20 cubic centimeters) in packaging that is break-resistant and tightly lidded or stoppered.

(c) Generators need not place oversized regulated medical waste in containers. Generators must note any special handling instructions for these items in Box 14 of the tracking form required under Subpart F and Appendix I of this part.

§ 259.42 Storage of regulated medical waste prior to transport, treatment, destruction, or disposal.

Any person who stores regulated medical waste prior to treatment or disposal on-site (e.g., landfill, interment, treatment and destruction, or incineration), or transport off-site, must comply with the following storage requirements:

(a) Store the regulated medical waste in a manner and location that maintains the integrity of the packaging and provides protection from water, rain and wind;

(b) Maintain the regulated medical waste in a nonputrescent state, using refrigeration when necessary;

(c) Lock the outdoor storage areas containing regulated medical waste (e.g., dumpsters, sheds, tractor trailers, or other storage areas) to prevent unauthorized access;

(d) Limit access to on-site storage areas to authorized employees; and

(e) Store the regulated medical waste in a manner that affords protection from animals and does not provide a breeding place or a food source for insects and rodents.

§ 259.43 Decontamination standards for reusable containers.

Generators, transporters, intermediate handlers, and destination facility owners and operators must comply with the following requirements with respect to reusing containers:

(a) All non-rigid packaging and inner liners must be managed as regulated medical waste under this part and must not be reused.

(b) Any container used for the storage and/or transport of regulated medical waste and designated for reuse once emptied, must be decontaminated if the container shows signs of visible contamination.

(c) If any container used for the storage and/or transport of regulated medical waste is for any reason not capable of being rendered free of any visible signs of contamination in accordance with paragraph (b) of this section, the container must be managed (labeled, marked and treated and/or disposed of) as regulated medical waste under this part.

§ 259.44 Labeling requirements.

Generators must label each package of regulated medical waste according to the following labeling requirements before transporting or offering for transport off-site:

(a) *Untreated regulated medical waste.* Each package of untreated regulated medical wastes must have a water-resistant label affixed to or printed on the outside of the container. The label must include the words "Medical Waste," or "Infectious Waste," or display the universal biohazard symbol. Red plastic bag(s) used as inner packaging need not display a label.

(b) *Treated regulated medical waste.* Packages containing treated regulated medical wastes are not required to be labeled under this section but are required to be marked according to § 259.45 of this subpart.

§ 259.45 Marking (identification) requirements.

Generators (including intermediate handlers) must mark each package of regulated medical waste according to the following marking requirements before the waste is transported or offered for transport off-site:

(a) The outermost surface of each package prepared for shipment must be marked with a water-resistant identification tag of sufficient dimension to contain the following information:

(1) Generator's or intermediate handler's name;

(2) Generator's or intermediate handler's State permit or identification number. If the generator's or intermediate handler's State does not issue permit or identification numbers, then the generator's or intermediate handler's address;

(3) Transporter name;

(4) Transporter State permit or identification number, or if not applicable, then the transporter's address;

(5) Date of shipment; and

(6) Identification of contents as medical waste.

(b) In addition to paragraph (a) of this section, if the generator has used inner containers, including sharps and fluid containers, each inner container must be marked with indelible ink or imprinted with water-resistant tags. The marking must contain the following information:

(1) Generator's or intermediate handler's name;

(2) Generator's or intermediate handler's State permit or identification number. If the generator's or intermediate handler's State does not issue permit or identification numbers, then the generator's or intermediate handlers' address.

Subpart F—Generator Standards

§ 259.50 Applicability and general requirements.

(a) This subpart establishes standards for generators of regulated medical waste.

(b) A person who generates a medical waste, as defined in § 259.10(b) of this part, and who is located in a Covered State, must determine if that waste is a regulated medical waste.

(c) A generator who either treats and destroys or disposes of regulated medical waste on-site (e.g., incineration, burial or sewer disposal covered by section 307(b)-(d), of the Clean Water Act) is not subject to tracking requirements for that waste.

NOTE TO THE SECTION: Generators of regulated medical waste with on-site incinerators are subject to the on-site incinerator requirements in Subpart G of this Part. In addition, generators who treat and destroy regulated medical waste are subject to § 259.54(c). Generators who treat or dispose of medical waste on-site may be subject to additional Federal, State or local laws and regulations.

(d) Vessels at port in a Covered State are subject to the requirements of this Part for those regulated medical wastes that are transported ashore in the Covered State. The owner or operator of the vessel and the person(s) removing or accepting waste from the vessel are considered co-generators of the waste.

(e) A generator of regulated medical waste must determine the quantity of regulated medical waste that he generates in a calendar month, and that is transported or offered for transport off-site for treatment, destruction, or disposal.

(1) *Generators of 50 pounds or more per month.* Generators who generate and transport or offer for transport off-site 50 pounds or more of regulated medical waste in a calendar month are subject to the requirements of Subpart E and all of the requirements of this Subpart for each shipment of regulated medical waste.

(2) *Generators of less than 50 pounds per month.* (i) Generators who generate and transport or offer for transport off-site less than 50 pounds of regulated medical waste in a calendar month are subject to the requirements of Subpart E of this Part and §§ 259.50, 259.51 and 259.54(b) of this subpart.

(ii) Generators of regulated medical waste who generate less than 50 pounds in a calendar month but who transport or offer for transport off-site more than 50 pounds in any one shipment, are also subject to Subpart E of this part and all of the requirements of this subpart for each shipment of 50 pounds or more.

(f) Generators or regulated medical waste must use transporters who have notified EPA under § 259.72 of this part to transport their regulated medical waste, except as provided in § 259.51 of this subpart.

§ 259.51 Exemptions.

(a) *Generators of less than 50 pounds per month.* Generators who meet the conditions of § 259.50(e)(2) of this subpart are exempt from the requirement to use a transporter who has notified EPA, exempt from the requirement to use the tracking form, and exempt from the requirements of Subpart H of this part provided that the following conditions are met:

(1)(i) The regulated medical waste is transported to a health care facility, an intermediate handler, or a destination facility with which the generator has a written agreement to accept the regulated medical waste; or

(ii) The generator is transporting the regulated medical waste from the original generation point to the generator's place of business; and

(2) The regulated medical waste is transported by the generator (or an authorized employee) in a vehicle owned by the generator or authorized employee; and

NOTE TO THE SECTION: Owned vehicle means a vehicle which is owned by or registered to the generator or employee or is under lease by the generator or authorized employee for a minimum of 30 days.

(3) The generator must compile a shipment log and maintain records as required by § 259.54(b)(2).

(b) *Shipments between generator's facilities.* Generators are exempt from the requirement to use a transporter who has notified EPA, exempt from the use of the tracking form, and exempt from the requirements of Subpart H of this part when transporting regulated medical waste from the original generation point to a central collection point, provided they meet all of the following conditions:

(1) The regulated medical waste is transported by the generator (or the generator's authorized employee) in a vehicle owned by the generator or the employee;

(2) The regulated medical waste is brought to a central collection point or treatment facility owned or operated by the generator;

(3) The original generation point and the central collection point or treatment facility are located in the same Covered State; and

(4) The generator compiles and maintains a shipment log at each original generation point and each central collection point as required by § 259.54(a)(2) of this part.

(c) *Shipments of regulated medical waste (Classes 4 and 7) through the U.S. Postal Service.* Generators who meet the conditions of § 259.50(e)(2)(i) of this subpart who transport regulated medical waste (Classes 4 and 7 of § 259.30(a) of this part) by the U.S. Postal Service, are exempt from the requirement to use a transporter who has notified EPA and from the requirement to use the tracking form, provided they meet the following conditions:

(1) The package is sent registered mail, return receipt requested (indicating to whom, signature, date, and address where delivered); and

(2) The generator compiles a shipment log and maintains the original receipt and the returned registered mail receipt as required by § 259.54(b)(3) of this part.

§ 259.52 Use of the tracking form.

(a) Except as provided in §§ 259.50(e)(2)(i) and 259.51 of this Subpart, a generator who transports or offers for transport regulated medical waste for off-site treatment or disposal, must prepare a tracking form according to this section and the instructions included in Appendix I to this part.

(b) Generators must obtain the tracking form from the following sources:

(1) For generators who transport or offer for transport off-site regulated medical waste to an intermediate handler or a destination facility in a Covered State which prints the tracking form and requires its use, the form from that State; and

NOTE TO PARAGRAPH (b)(1): For generators who transport or offer for transport regulated medical waste to another Covered State which prints the tracking form and requires its use, the transporter is required to provide the generator with the receiving State's form.

(2) For all other generators, the tracking form from the State in which the waste was generated.

(3) If the generator's State does not print the tracking form, the generator must use the tracking form in Appendix I of this part.

(c) The generator must prepare at least the number of tracking form copies that will provide the generator, each transporter(s), and each intermediate handler with one copy, and the owner or operator of the destination facility with two copies.

NOTE TO PARAGRAPH (c): The destination facility keeps one copy for their records and returns the second copy to the generator.

(d) The generator must also:

(1) Sign the certification statement on the tracking form by hand;

(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the tracking form; and

(3) Retain one copy, in accordance with § 259.54.

(e) For rail shipments of regulated medical waste within the United States that originate at the site of generation, the generator must send at least three (3) copies of the tracking form dated and signed in accordance with this section to:

(1) The next non-rail transporter, if any; or

(2) The intermediate handler or destination facility if transported solely by rail; or;

(3) The last rail transporter to handle the waste in the United States if exported by rail.

§ 259.53 Generators exporting regulated medical waste.

Generators (including transporters and intermediate handlers that initiate tracking forms) who export regulated medical waste to a foreign country (e.g., Canada) for treatment and destruction, or disposal, must request that the destination facility provide written confirmation that the waste was received. If the generator has not received that confirmation from the destination facility within 45 days from the date of acceptance of the waste by the first transporter, the generator must submit an exception report as required under § 259.55 of this subpart.

§ 259.54 Recordkeeping.

(a) Except as provided in paragraph (b) of this section, each generator must:

(1)(i) Keep a copy of each tracking form signed in accordance with § 259.52 of this part, for at least three (3) years from the date the waste was accepted by the initial transporter; and

(ii) Retain a copy of all exception reports required to be submitted under § 259.55(c) of this subpart.

(2) Generators who meet the conditions of § 259.51(b) of this subpart must meet the following requirements:

(i) A shipment log must be maintained at the original generation point for a period of three (3) years from the date the waste was shipped. The log must contain the following information:

(A) Date of shipment;

(B) Quantity (by weight) of regulated medical waste transported, by waste category (i.e., untreated and treated);

(C) Address or location of central collection point; and

(D) Signature of generator's employee who will transport the waste, indicating acceptance.

(ii) A shipment log must be maintained at each central collection point for a period of three (3) years from the date that regulated medical waste was accepted from each original generation point and must contain the following information:

(A) Date of receipt;

(B) Quantity (by weight) of regulated medical waste accepted, by waste category (i.e., untreated and treated);

(C) Address or location of original generation point; and

(D) Signature of generator or generator's representative who operates the central collection point, indicating acceptance of the waste.

(b) Generators who meet the conditions of § 259.50(e)(2)(i) of this subpart, who do not transport or offer for transport off-site more than 50 pounds of regulated medical waste in a single shipment, and who do not voluntarily comply with the use of the tracking form are subject to the following recordkeeping requirements:

(1) Generators who use a transporter who has notified EPA must maintain a log for a period of three (3) years from the date of shipment that contains the following information for each shipment or pickup:

(i) Transporter's name and address;

(ii) Transporter's State permit or identification number, if one is required by the State;

(iii) Quantity of regulated medical waste transported, by waste category (i.e., untreated and treated);

(iv) Date of shipment; and

(v) The signature of the transporter's representative accepting the regulated medical waste for transport.

(2) Generators who transport regulated medical waste to a health care facility or to a treatment, destruction, or disposal facility as specified in § 259.51(a) of this subpart must compile and maintain a log for a period of three (3) years from the date of the last shipment entered into the log. The log must contain the following information:

(i) Name and address of the intermediate handler, destination facility, or health care facility to which the generator has transported that shipment of regulated medical waste;

(ii) Quantity (by weight) of regulated medical waste transported, by waste category (i.e., untreated and treated);

(iii) Date of shipment; and

(iv) Signature of the generator or his authorized representative who transported the waste.

(3) Generators who transport regulated medical waste by the U.S. Postal Service under § 259.51(c) of this subpart must retain the original U.S. Postal Service receipt and the return mail receipt and maintain a shipment log for a period of three (3) years from the date of shipment. The log must contain the following information:

(i) Quantity (by weight) of regulated medical waste transported, by waste category (i.e., untreated and treated);

(ii) Date of shipment; and

(iii) Name and address of each intermediate handler or destination facility to which the generator has transported the regulated medical waste by the U.S. Postal Service.

(c) Each generator who treats and destroys regulated medical waste onsite by a method or process other than incineration, must maintain the following records:

(1) The approximate quantity by weight, of regulated medical waste that is subject to the treatment and destruction processes;

(2) Approximate percent, by weight, of total waste treated and destroyed that is regulated medical waste;

(3) For regulated medical waste accepted from generators meeting the exemption conditions in § 259.51 (a) or (c), information identifying the generator, the date the waste was accepted, the weight of waste accepted, and the date the waste was treated and destroyed; and

(4) Records must be maintained by the generator for a period of at least three (3) years from the date the waste was treated and destroyed.

§ 259.55 Exception Reporting.

(a) A generator who meets the conditions of § 259.50 (e)(1) or (e)(2)(ii) of this subpart must contact the owner or operator of the destination facility, transporter(s), and intermediate handler(s), as appropriate, to determine the status of any tracked waste if he does not receive a copy of the completed tracking form with the handwritten signature of the owner or operator of the destination facility within 35 days of the date the waste was accepted by the initial transporter.

(b) A generator must submit an Exception Report, as described below, to the State and the EPA Regional Administrator for the Region in which the generator is located if he has not received a completed copy of the tracking form signed by the owner or operator of the destination facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must be postmarked on or before the 46th day and must include:

(1) A legible copy of the original tracking form for which the generator does not have confirmation of delivery; and

(2) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the regulated medical waste and the results of those efforts.

(c) A copy of the exception report must be kept by the generator for a period of at least three (3) years from the due date of the report.

§ 259.56 Additional Reporting.

The Administrator may require generators to furnish additional information concerning the quantities and management methods of medical waste as he deems necessary under RCRA section 11004.

Subpart G—On-Site Incinerators

§ 259.60 Applicability.

(a) The regulations in this subpart apply to generators of regulated medical waste who incinerate regulated medical waste on-site.

(b) Generators of regulated medical waste who incinerate such waste onsite and who accept regulated medical waste accompanied by a tracking form are also subject to the requirements of Subpart I of this part.

§ 259.61 Recordkeeping.

(a) Generators must keep an operating log at their incineration facility that includes the following information:

(1)(i) The date each incineration cycle was begun;

(ii) The length of the incineration cycle;

(iii) The total quantity of medical waste incinerated, per incineration cycle; and

(iv) An estimate of the quantity of regulated medical waste incinerated, per incineration cycle.

(2) Generators with on-site incinerators that accept regulated medical waste from generator(s) subject to § 259.51(a) of this Part must maintain the following information for each shipment of regulated medical waste accepted:

(i) The date the waste was accepted;

(ii) The name and State permit or identification number of the generator who originated the shipment. If the State does not issue permit or identification numbers, then the generator's address;

(iii) The total weight of the regulated medical waste accepted from the originating generator; and

(iv) The signature of the individual accepting the waste.

(b)(1) Generators must compile the operating log required by paragraph (a)(1) of this section during the following period: June 22, 1989, to June 22, 1991.

(2) Generators must retain the operating log until at least June 22, 1992.

(c) Generators with on-site incinerators that accept regulated medical waste from generators subject to the tracking form requirements must keep copies of all tracking forms for a period of three years from the date they accepted the waste.

(d) Generators must retain a copy of the on-site incinerator report form required under § 259.62 of this subpart for three (3) years from the date of submission.

§ 259.62 Reporting.

(a) *General.* The owner or operator of an on-site incinerator must prepare and submit two copies of the on-site incinerator report on the form provided in Appendix II of this part to: Chief, Waste Characterization Branch, Office of Solid Waste (OS-332), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The reports must summarize information collected in the operating log during the first and third six-month period after the effective date of the demonstration program, and must contain the following information in the format provided in Appendix II of this part:

(1) Facility name, mailing address, and location;

(2) Facility type (e.g., hospital, laboratory);

(3) Contact person;

(4) Waste feed information;

(5) The total number of incinerators at the facility that incinerate regulated medical waste and information concerning each incinerator.

(b) Each report must contain the following certification, signed by the facility owner or his authorized representative: I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

(c)(1) *Dates.* The first report is due February 6, 1990, and must contain information from the first six months of the demonstration program.

(2) The second report is due February 6, 1991, and must contain information from the thirteenth through the eighteenth month of the demonstration program.

Subpart H—Transporter Requirements

§ 259.70 Applicability.

(a) These requirements apply to transporters, including generators who transport their own waste, and owners and operators of transfer facilities engaged in transporting regulated medical waste generated in a Covered State.

(b) These regulations do not apply to on-site transportation of regulated medical waste, nor to shipments exempted under § 259.51 (a), (b), or (c) of this part.

(c) A transporter of regulated medical waste must also comply with Subpart F of this part when he consolidates two or more shipments of regulated medical waste onto a single tracking form.

(d) Transporters must also comply with Subpart E of this part if they:

(1) Store regulated medical waste in the course of transport; or

(2) Remove regulated medical waste from a reusable container; or

(3) Modify packaging of regulated medical waste.

§ 259.71 Transporter acceptance of regulated medical waste.

(a) Transporters must not accept for transport any regulated medical waste generated in a Covered State unless the outer surface of the container is labeled and marked in accordance with Subpart E of this part.

(b) Transporters must not accept a shipment of regulated medical waste from a generator unless accompanied by a properly completed tracking form as required under Subpart F of this part, unless the generator is exempt from the use of the tracking form under either § 259.50(e)(2)(i) or § 259.51 of this part.

(c) *Marking (identification).* When regulated medical waste is handled by more than one transporter, each subsequent transporter must attach a water resistant identification tag below the generator's marking on the outer surface of the packaging, that does not obscure the generator's or previous transporter's markings. The transporter taking possession of the shipment must ensure that the tag contains the following information:

(1) Name of transporter taking possession (receiving) of the regulated medical waste;

(2) Transporter State permit or identification number. If the State does not issue permit or identification numbers, then the transporter's address; and

(3) Date of receipt.

§ 259.72 Transporter notification.

(a)(1) Transporters (including owners or operators of transfer facilities) are prohibited from transporting regulated medical waste generated in a Covered State unless they have notified EPA and the Covered State in writing as provided in this Section.

(2) Transporters who accept regulated medical waste that was generated in a Covered State, or who transport regulated medical waste that was generated in a Covered State, must submit a separate notification form for each Covered State in which the regulated medical waste was generated.

(3)(i) The original and one copy of the transporter notification must be sent to: Chief, Waste Characterization Branch (OS-332), EPA Office of Solid Waste, 401 M Street, SW., Washington, DC 20460.

(ii) An additional copy must be sent to the Director of the waste management agency in the Covered State for which the transporter is notifying.

(b) Each transporter notification must contain the following information:

(1) Transporter's name, mailing address, and EPA hazardous waste identification number (if any);

(2) Name, address and telephone number for each transportation or transfer facility (by site) that the transporter will operate from for each Covered State for which the transporter is notifying;

(3) Identifications (State permit or license numbers) required to handle medical or infectious waste; and

(4) The following statement signed by a corporate official or the owner or operator: I certify, under penalty of criminal or civil prosecution for making or submission of false statements, representations, or omissions, that I have read, understand, and will comply with the regulations at 40 CFR Part 259, issued under authority of Subtitle J of the Resource Conservation and Recovery Act.

NOTE TO PARAGRAPH (b): The Agency has published a suggested form for transporter notification in Appendix IV of this part which may be utilized by transporters notifying EPA.

(c) EPA will issue transporters, who notify under this section, a unique EPA Medical Waste Identification Number for each Covered State for which they have notified. This identification number will apply to all transporter sites identified in paragraph (b)(2) of this section, that relate to each Covered State. Transporters may accept regulated medical waste after notifying under this section. Upon receipt of an EPA Medical Waste Identification Number the transporter must include it on Box 5 of the Medical Waste Tracking Form found in Appendix I of this part.

NOTE TO THE SECTION: States may impose or may presently have in place additional licensing, permitting or other requirements that apply to transporters of regulated medical waste.

§ 259.73 Vehicle requirements.

(a) Transporters must use vehicles to transport regulated medical waste that meet the following requirements:

(1) The vehicle must have a fully enclosed, leak-resistant cargo-carrying body;

(2) The transporter must ensure that the waste is not subject to mechanical stress or compaction during loading and unloading or during transit;

(3) The transporter must maintain the cargo-carrying body in good sanitary condition; and

(4) The cargo-carrying body must be secured if left unattended.

(b) The transporter must use vehicles to transport regulated medical waste that have the following identification on the two sides and back of the cargo-carrying body in letters a minimum of 3 inches in height:

(1) The name of the transporter;

(2) The transporter's State permit or license number, if any; and

(3) A sign or the following words imprinted:

(i) MEDICAL WASTE; or

(ii) REGULATED MEDICAL WASTE.

(c) A transporter must not transport regulated medical waste in the same container with other solid waste unless the transporter manages both as regulated medical waste in compliance with this subpart.

§ 259.74 Tracking form requirements.

(a) *General.* A transporter may not accept a shipment of regulated medical waste in excess of 50 pounds from a generator in a Covered State or from a generator in a Covered State who generates more than 50 pounds per month, unless it is accompanied by a tracking form completed in accordance with Appendix I of this part and signed by the generator in accordance with the provisions of § 259.52 of this part. In the case where a transporter intends to deliver regulated medical waste generated in a Covered State to another Covered State, the latter of which supplies its own tracking form and requires its use, the transporter must provide the generator with the form of the Covered State to which the waste is to be sent.

(b) *Acceptance.* Before accepting for transport or transporting any regulated medical waste that is accompanied by a tracking form, the transporter must:

(1) Certify that the tracking form accurately reflects the number and total weight of the packages being transported by signing and dating the tracking form acknowledging acceptance of the regulated medical waste from the generator; and

(2) Return a signed copy of the tracking form to the generator before leaving the generator's site.

(c) *In transit.* The transporter must ensure that the tracking form accompanies the regulated medical waste while in transit.

(d) *Delivery of regulated medical waste in the United States.* A transporter, upon delivery of the regulated medical waste to another transporter (including a transfer facility) or to an intermediate handler or destination facility located in the United States, must:

(1) Obtain the date of delivery and the handwritten signature of the transporter, or the owner or operator of the intermediate handling facility, or destination facility on the tracking form;

(2) Retain one copy of the tracking form in accordance with § 259.77 of this part; and

(3) Give the remaining copies of the tracking form to the accepting transporter, intermediate handler, or destination facility.

(e) *Delivery of regulated medical waste outside the United States.* Any transporter who transports regulated medical waste across an international border, or who delivers regulated medical waste to a transporter or treatment, destruction, or destination facility located in a foreign country (e.g., Canada) must:

(1) Sign the tracking form and verify that the waste has been delivered to the next (foreign) transporter, or treatment, destruction, or destination facility;

(2) Retain one copy of the signed tracking form for his records; and

(3) Return all remaining copies of the tracking form by mail to the generator.

(f) *Rail shipment.* For shipments involving rail transportation, the requirements of § 259.91 of this part apply to rail transporters in lieu of the requirements of paragraphs (b), (c), and (d) of this section.

(g) *Special requirements for waste from generators of less than 50 pounds/month.* A transporter accepting a shipment of less than 50 pounds of regulated medical waste from a generator who generates less than 50 pounds per month need not comply with the requirements of paragraphs (a) through (f) of this section provided that:

(1) The transporter compiles a log, containing the following information for each shipment of regulated medical waste:

(i) The generator's name and State permit or identification number, or, if the generator's State does not issue permit or identification numbers, then the generator's address.

(ii) The quantity of waste accepted (number of packages and total weight by waste category (i.e., "untreated" and "treated")); and

(iii) The date the waste is accepted;

(2) The transporter carries this log in the vehicle while transporting such regulated medical waste to a second transporter;

(3) The transporter dates and signs the generator's log required under § 259.54(b) of this part; and

(4) The transporter complies with § 259.76(a) of this subpart.

§ 259.75 Compliance with the tracking form.

(a) Except as provided in paragraph (b) of this section, the transporter must deliver the entire quantity of regulated medical waste that he has accepted from a generator or another transporter to:

(1) The intermediate handler or destination facility listed on the tracking form; or

(2) The next transporter.

(b) If the regulated medical waste cannot be delivered in accordance with paragraph (a) of this section, the transporter must contact the generator for further directions, revise the tracking form according to the generator's instructions, and deliver the entire quantity of regulated medical waste from that generator according to the generator's instructions.

§ 259.76 Consolidating or remanifesting waste to a new tracking form.

(a) Transporters must complete a tracking form for all regulated medical waste received from generators who meet the conditions of § 259.50(e)(2)(i) of this part (in shipments of less than 50 pounds that are not accompanied by a tracking form).

(b) A transporter may choose to consolidate or remanifest to a single tracking form all shipments of regulated medical waste less than 220 pounds.

NOTE TO PARAGRAPH (b): EPA strongly recommends that, to minimize bookkeeping errors, transporters consolidate or remanifest those shipments from generators who are required to originate the tracking form separately from those shipments by generators who are not required to originate the tracking form.

(c) When the transporter receives the signed tracking form that he initiated from the destination facility, and the regulated medical waste was accompanied by a tracking form originated by a generator, the transporter must:

(1) Attach a copy of the tracking form signed by the destination facility to the generator's original tracking form; and

(2) Retain a copy of each tracking form in accordance with § 259.77 of this subpart; and

(3) Return a copy of each tracking form to the generator within 15 days of receipt of the tracking form from the destination facility.

(4) For each tracking form initiated, either by accepting waste from generators who meet the condition of § 259.50(e)(2)(i) of this part or by consolidating tracking forms onto a new one, the transporter must maintain a consolidation log indicating all shipments consolidated or remanifested on that form. The log must accompany the tracking form and include the following information:

(i) Name of each generator;

(ii) Generator's State permit or identification number. If the generator's State does not issue permit or identification numbers, then the generator's address;

(iii) Date the regulated medical waste was originally shipped by the generator;

(iv) Quantity of regulated medical waste (number of containers and/or weight in pounds) by waste category (i.e., "untreated" or "treated") shipped by each generator; and

(v) The names, State permit or identification numbers of all previous transporters or, if not applicable, the transporters' addresses.

§ 259.77 Recordkeeping.

(a) A transporter of regulated medical waste must keep a copy of the tracking form signed by the generator, himself, the previous transporter (if applicable), and the next party, which may be one of the following: another transporter; or the owner or operator of an intermediate handling facility; or destination facility. The transporter must retain a copy of this form for a period of three (3) years from the date the waste was accepted by the next party.

(b) For regulated medical waste that is not accompanied by a generator-initiated tracking form, the transporter must retain a copy of all transporter-initiated tracking forms and consolidation logs for a period of three (3) years from the date the waste was accepted by the transporter.

(c) For any regulated medical waste that was received by the transporter accompanied by a tracking form and consolidated or remanifested by the transporter to another tracking form, the transporter must:

(1) Retain a copy of the generator-initiated tracking form signed by the transporter for three (3) years from the date the waste was accepted by the transporter; and

(2) Retain a copy of the transporter-initiated tracking form signed by the intermediate handler or destination facility for three (3) years from the date the waste was accepted by the intermediate handler or destination facility.

(d) Retain a copy of each transporter report required by § 259.78 of this subpart for three (3) years after the date of submission.

§ 259.78 Reporting.

(a)(1) A transporter who accepts regulated medical waste generated in a Covered State must submit reports describing the source and disposition of the waste. The reports must be submitted using the form in Appendix III of this part.

(2) Transporters who accept regulated medical waste directly from a generator in a Covered State, or who transport regulated medical waste that was generated in a Covered State, must submit a separate report for each Covered State's waste they have transported.

(b) Each report must be submitted as follows:

(1) One copy must be submitted to: Chief, Waste Characterization Branch (OS-332), Office of Solid Waste, U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460; and

(2) A second copy must be submitted to the Director of the waste management agency in the State for which the transporter has compiled the report.

(c)(1) Each report must contain the following information in the format provided by Appendix III of this part:

(i) The transporters name, address, and EPA medical waste identification number;

(ii) The name and telephone number of a contact person;

(iii) Total number of generators from whom the transporter accepted regulated medical waste;

(iv) The name, address, and type of each generator from whom the transporter accepted regulated medical waste;

(v) The amount by weight and waste category (untreated or treated) of regulated medical waste accepted from each generator;

(vi) The total, by weight and waste category, of regulated medical waste from all generators in the Covered State that the transporter delivered to an intermediate handler or to a destination facility; and

(vii) The total, by weight and waste category, of regulated medical waste from all generators in the Covered State that the transporter delivered to a second transporter or to a transfer facility.

(viii) The certification signed by the owner or operator, or his authorized representative.

(2) Transporters who transport or deliver regulated medical waste to an intermediate handler or to a destination facility must also provide the following information:

(i) The name and address of each intermediate handler and destination facility to which waste from that Covered State was delivered;

(ii) The amount, by waste category, that was delivered;

(iii) The total number of intermediate handlers and destination facilities to which waste was delivered.

(d) The transporter must submit reports covering the following periods:

(1) A report covering the 180 day period from June 23, 1989, to December 19, 1989.

(2) A report covering the 180 day period from December 20, 1989, to June 17, 1990.

(3) A report covering the 180 day period from June 18, 1990, to December 14, 1990.

(4) A report covering the 180 day period from December 15, 1990, to June 12, 1991.

(e) Transporters must submit the reports required in paragraph (d) of this section on or before the date 45 days after the end of the reporting period.

(f) Each transporter who initiates a tracking form must meet the requirements of § 259.55 of this part, exception reporting, except that the 35 and 45 day periods begin on the day the transporter accepted the waste from the generator.

§ 259.79 Additional reporting.

The Administrator may require transporters to furnish additional information concerning the quantities and management methods of regulated medical waste as he deems necessary under RCRA section 11004.

Subpart I—Treatment, Destruction, and Disposal Facilities

§ 259.80 Applicability.

(a) These regulations apply to owners and operators of facilities that receive regulated medical waste generated in a Covered State, including facilities located in non-Covered States that receive regulated medical waste generated in a Covered State. Facilities that are subject to this subpart include:

(1) Destination facilities (i.e., treatment and destruction facilities, a facility that causes the regulated medical waste to meet the conditions of § 259.30(b)(1) (iii) or (iv) of this part including incineration facilities, and disposal facilities); and

(2) Intermediate handlers (i.e., facilities that either treat or destroy the regulated medical waste, but do not cause it to meet the conditions of § 259.30(b)(1) (iii) or (iv) of this part).

(b)(1) Except as provided by paragraph (b)(2) of this section, this subpart does not apply to generators who incinerate regulated medical waste onsite.

(2) This subpart does apply to generators who receive regulated medical waste required to be accompanied by a tracking form.

§ 259.81 Use of the tracking form.

(a) *Destination Facility.* When a destination facility receives regulated medical waste accompanied by a tracking form, the owner or operator must:

(1) Sign and date each copy of the tracking form to certify that the regulated medical waste listed on the tracking form was received;

(2) Note any discrepancies as defined in § 259.82(a) of this subpart on the tracking form;

(3) Immediately give the transporter at least one copy of the signed tracking form;

(4) Send a copy of the tracking form to the generator (or to the transporter or intermediate handler that initiated the tracking form) within 15 days of the delivery;

(5) Retain a copy of each tracking form in accordance with § 259.83 of this subpart.

(b) *Intermediate Handlers.* When an intermediate handler receives regulated medical waste accompanied by a tracking form, the owner or operator must meet the following requirements:

(1) The owner or operator must meet all the requirements for generators under both subparts E and F of this part including signing the tracking form accepting the waste as specified in Box 20 and entering the new tracking form number in Box 21 when initiating a new tracking form for each shipment of regulated medical waste that has either been treated or destroyed.

(2) The owner or operator must maintain a log matching the original generator's tracking forms to the tracking form that he initiates. This log must include:

(i) Name(s) of generator(s);

(ii) Generator's State permit or identification number. If the State does not issue permit or identification numbers, then the generator's address;

(iii) The date the regulated medical waste was originally shipped by the generator or the generator's unique tracking form number;

(iv) The new tracking form number to which the waste is assigned;

(3) Within 15 days of receipt of the tracking form that he initiated and that was signed by the destination facility, the intermediate handler must:

(i) Attach a copy of the tracking form signed by the destination facility to the original tracking form initiated by the generator identified in § 259.81(b)(2)(i) above;

(ii) Send a copy of each tracking form to the generator who initiated the tracking form; and

(iii) Retain a copy of each tracking form in accordance with the requirements of § 259.83 of this subpart.

(c) *Rail shipments.* If a destination facility or intermediate handler receives from a rail transporter regulated medical waste that is accompanied by shipping papers containing the information required on the medical waste tracking form, with the exception of the generator's certification and chain of custody signatures, the owner or operator or his agent, must:

(1) Sign and date each copy of the tracking form or the shipping papers (if the tracking form has not been received);

(2) Note any discrepancies as defined in § 259.82(a) of this subpart on each copy of the tracking form or shipping papers (if the tracking form has not been received);

(3) Immediately give the rail transporter at least one copy of the tracking form or shipping papers (if the tracking form has not been received);

(4)(i) If the facility is a destination facility, send a copy of the signed and dated tracking form to the generator within 15 days after the delivery. If the owner or operator has not received the tracking form within 15 days of delivery, he must send a copy of the signed and dated shipping papers to the party initiating the tracking form;

(ii) If the facility is an intermediate handler, retain a copy of the tracking form (or the shipping papers if the tracking form has not been received), until he receives a copy of the tracking form signed by the owner or operator of the destination facility. He then must:

(A) Attach a copy of the tracking form signed by the destination facility to the original tracking form (or the shipping papers if the tracking form has not been received) initiated by another party;

(B) Send a copy of each tracking form (or each set of shipping papers) to the party who initiated the tracking form; and

(C) Retain a copy of each tracking form in accordance with the requirements of § 259.83 of this subpart.

(5) The destination facility and intermediate handlers must retain a copy of the tracking form (or shipping papers if signed in lieu of the tracking form) for at least three (3) years from the date of acceptance of the regulated medical waste.

NOTE TO PARAGRAPH (c): Destination facilities and intermediate handlers receiving shipments by rail should expect to receive the tracking form from the generator, or the preceding non-rail transporter who will have sent the tracking form to the facility by some other means (e.g., by mail).

§ 259.82 Tracking form discrepancies.

(a) Tracking form discrepancies are:

(1) For containers, any variation in piece count such as a discrepancy of one box, pail, or drum in a truckload;

(2) For waste by categories (i.e., untreated or treated) discrepancies in number of containers for each category of regulated medical waste as described on the label imprinted or affixed to the outer surface of the package;

(3) Packaging that is broken, torn, or leaking; and

(4) Regulated medical waste that arrives at an intermediate handler or a destination facility unaccompanied by a tracking form, where the owner or operator knows such form is required, or for which the tracking form is incomplete or not signed.

(b) Upon discovering a discrepancy, the owner or operator must attempt to resolve (e.g., with telephone conversations) the discrepancy with the waste generator, the transporter and/or the intermediate handler. If the discrepancy is not resolved, the owner or operator must submit a letter, within 15 days of receiving the waste, to the EPA Regional Administrator(s) for both the State of generation and the State in which the facility is located as well as to the appropriate State agency for the Covered State in which the generator is located. The letter must describe the nature of the discrepancy and the attempts the owner or operator has undertaken to reconcile it. The owner or operator must include with the letter a legible copy of the tracking form or shipping papers in question. If the discrepancy is the type specified in paragraph (a)(4) of this section, the report must specify the quantity of waste received, the transporter, and the generator(s).

§ 259.83 Recordkeeping.

(a) The owner or operator of a destination facility or an intermediate handler receiving regulated medical waste generated in a Covered State must maintain records for a minimum of three (3) years from the date the waste was accepted. These records must contain the following information:

(1) Copies of all tracking forms required by the following paragraphs of this subpart: § 259.81(a)(5), (b)(3)(iii); and (c)(4)(ii)(C); and the logs required by § 259.81(b)(2) of this subpart;

(2) The name and State permit or identification number of each generator who delivered waste to the destination facility or intermediate handler under § 259.51(a) of this part, if the State does not issue permit or identification numbers then the generator's address; and

(3) Copies of all discrepancy reports required by § 259.82(b) of this subpart.

(b) The owner or operator of a destination facility or an intermediate handler that accepts regulated medical waste from generator(s) subject to § 259.51(a) of this part must maintain the following information for each shipment of regulated medical waste accepted:

(1) The date the waste was accepted;

(2) The name and State permit or identification number of the generator who originated shipment. If the State does not issue permit or identification numbers, then the generator's address;

(3) The total weight of the regulated medical waste accepted from the originating generator; and

(4) The signature of the individual accepting the waste.

§ 259.84 Additional reporting.

The Administrator may require owners or operators of destination facilities and intermediate handlers to furnish additional information concerning the quantities and management methods of medical waste as he deems necessary under RCRA section 11004.

Subpart J—Rail Shipments of Regulated Medical Waste

§ 259.90 Applicability.

(a) These requirements apply to persons engaged in rail transportation of regulated medical waste generated in a Covered State.

(b) Rail transporters of regulated medical waste must also comply with Subpart H of this part, Transporter Requirements, except as otherwise provided in § 259.74(f) of this part.

§ 259.91 Rail shipment tracking form requirements.

(a) The following requirements apply to all shipments of regulated medical waste involving rail transport:

(1) When accepting regulated medical waste generated in a Covered State from a non-rail transporter, the initial rail transporter must:

(i) Sign and date the tracking form acknowledging acceptance of the regulated medical waste;

(ii) Return a signed copy of the tracking form to the non-rail transporter;

(iii) Forward at least three copies of the tracking form to:

(A) The next non-rail transporter, if any; or

(B) The intermediate handler or destination facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States; and

(iv) Retain one copy of the tracking form and rail shipping paper in accordance with § 259.77 of this part.

(2) Rail transporters must ensure that a shipping paper containing all the information required on the tracking form (excluding permitting or licensing numbers, generator certification, and signatures) accompanies the shipment at all times. Intermediate rail transporters are not required to sign either the tracking form(s) or shipping paper(s).

(3) When delivering regulated medical waste to an intermediate handler or destination facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the facility on the tracking form or the shipping papers (if the tracking form has not been received by the facility); and

(ii) Retain a copy of the tracking form or signed shipping paper in accordance with § 259.77 of this part.

(4) When delivering regulated medical waste to a non-rail transporter, a rail transporter must:

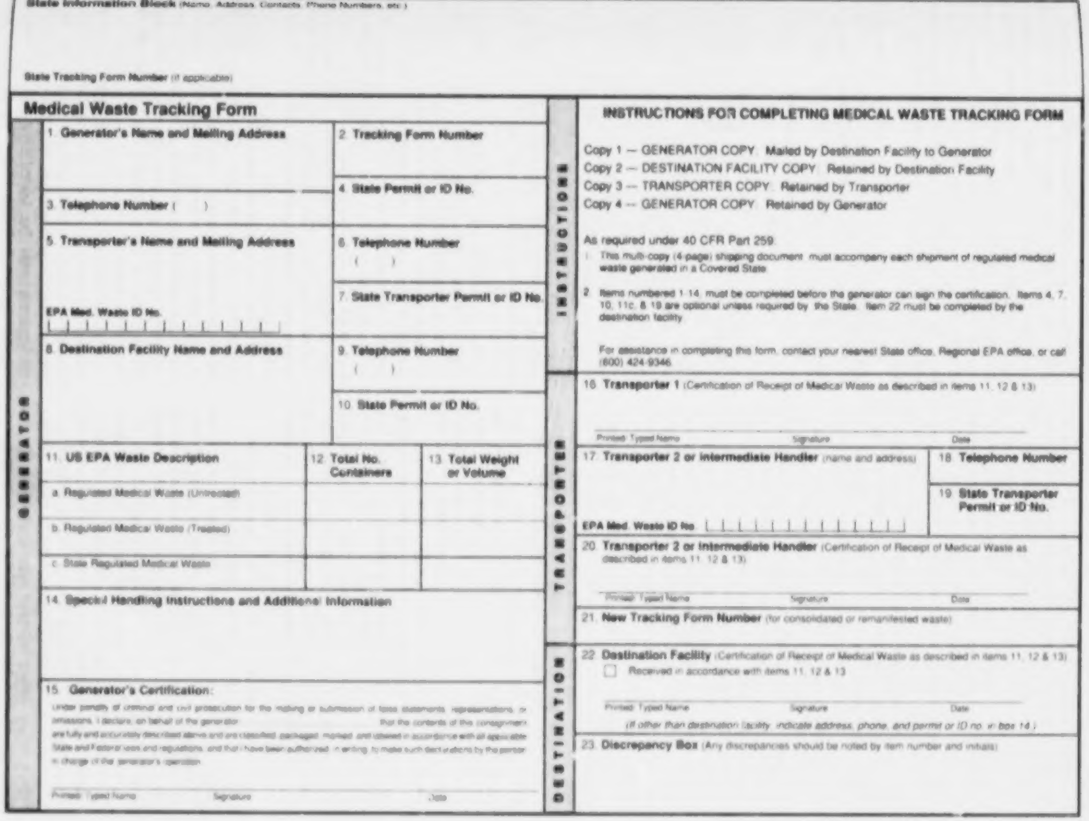
(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the tracking form; and

(ii) Retain a copy of the tracking form in accordance with § 259.77 of this part.

(5) Upon accepting regulated medical waste generated in a Covered State from a rail transporter, a non-rail transporter must sign and date the tracking form (or the shipping papers if the tracking form has not been received by the transporter) and provide a copy to the rail transporter.

best copy available

APPENDIX I TO PART 259—MEDICAL WASTE TRACKING FORM AND INSTRUCTIONS



State Information Block (Name, Address, Contacts, Phone Numbers, etc.)

State Tracking Form Number (if applicable)

Medical Waste Tracking Form

GENERATOR

1. **Generator's Name and Mailing Address**

2. **Tracking Form Number**

3. **Telephone Number** (   )

4. **State Permit or ID No.**

5. **Transporter's Name and Mailing Address**

EPA Med. Waste ID No. |_|_|_|_|_|_|_|_|_|_|_|_|

6. **Telephone Number** (   )

7. **State Transporter Permit or ID No.**

8. **Destination Facility Name and Address**

9. **Telephone Number** (   )

10. **State Permit or ID No.**

11. **US EPA Waste Description**	12. **Total No. Containers**	13. **Total Weight or Volume**
a. Regulated Medical Waste (Untreated)		
b. Regulated Medical Waste (Treated)		
c. State Regulated Medical Waste		

14. **Special Handling Instructions and Additional Information**

15. **Generator's Certification:**

Under penalty of criminal and civil prosecution for the making or submission of false statements, representations, or omissions, I declare, on behalf of the generator ______ that the contents of this consignment are fully and accurately described above and are classified, packaged, marked, and labeled in accordance with all applicable State and Federal laws and regulations, and that I have been authorized, in writing, to make such declarations by the person in charge of the generator's operation.

Printed/Typed Name   Signature   Date

INSTRUCTIONS

INSTRUCTIONS FOR COMPLETING MEDICAL WASTE TRACKING FORM

Copy 1 — GENERATOR COPY: Mailed by Destination Facility to Generator
Copy 2 — DESTINATION FACILITY COPY: Retained by Destination Facility
Copy 3 — TRANSPORTER COPY: Retained by Transporter
Copy 4 — GENERATOR COPY: Retained by Generator

As required under 40 CFR Part 259:

1. This multi-copy (4-page) shipping document must accompany each shipment of regulated medical waste generated in a Covered State.
2. Items numbered 1-14 must be completed before the generator can sign the certification. Items 4, 7, 10, 11c, & 19 are optional unless required by the State. Item 22 must be completed by the destination facility.

For assistance in completing this form, contact your nearest State office, Regional EPA office, or call (800) 424-9346.

TRANSPORTER

16. **Transporter 1** (Certification of Receipt of Medical Waste as described in items 11, 12 & 13)

Printed/Typed Name   Signature   Date

17. **Transporter 2 or Intermediate Handler** (name and address)

EPA Med. Waste ID No. |_|_|_|_|_|_|_|_|_|_|_|_|

18. **Telephone Number**

19. **State Transporter Permit or ID No.**

20. **Transporter 2 or Intermediate Handler** (Certification of Receipt of Medical Waste as described in items 11, 12 & 13)

Printed/Typed Name   Signature   Date

21. **New Tracking Form Number** (for consolidated or remanifested waste)

DESTINATION

22. **Destination Facility** (Certification of Receipt of Medical Waste as described in items 11, 12 & 13)

☐ Received in accordance with items 11, 12 & 13

Printed/Typed Name   Signature   Date

(If other than destination facility, indicate address, phone, and permit or ID no. in box 14.)

23. **Discrepancy Box** (Any discrepancies should be noted by item number and initials)

General Instructions

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch elite typewriter; a firm ballpoint pen may also be used—press down hard (as you are writing through multiple copies).

Federal regulations require generators, transporters, intermediate handlers, and owners and operators of destination facilities (treatment, destruction facilities, and disposal facilities) to use this form for both inter- and intrastate transportation of regulated medical waste which is generated in a Covered State. Generators must obtain the Medical Waste Tracking Form from the following sources:

(1) If the regulated medical waste is to be shipped to a Covered State for treatment, destruction, or disposal, then the generator must use that Covered State's form. For generators who transport or offer for transport regulated medical waste to another Covered State which requires use of its version of the tracking form, the transporter must provide the generator with the receiving Covered State's form.

(2) If the receiving Covered State does not require the use of its version of the form, or the receiving State is a non-Covered State, then the generator must obtain the form from the generator's own State.

(3) If the generator's State does not require the use of that State's version of the tracking form, then the generator may obtain copies from other sources or produced them using the printed version of the Federal form provided in this appendix.

Section 11007 of the Medical Waste Tracking Act specifies that any State or local law which requires submission of a regulated medical waste tracking form from any person subject to this Act shall require that the form be identical in content and format to the Medical Waste Tracking Form except that a State may require the submission of other information which is supplemental to that on the form. Such State-required information may be included through use of additional sheets or such other means as the State deems appropriate. The Agency determines that no additional or supplemental State information can be required on the form except as specified below. Generators of regulated medical waste in Covered States are advised to be aware of any special requirements within the Covered States.

If States wish to print their own forms, they may print in the one inch box at the top of the form the following types of information: (1) Where to obtain a State printed tracking form; (2) essential State information (State addresses or telephone numbers); and (3) special State instructions (e.g., *if the State requires a five or six part form,* that State might print addresses to which the additional forms must be sent).

The Medical Waste Tracking Form also includes a box for a State Tracking Form Number. If the State requires such a number, it can be printed on the form in that box. In addition, some States may require waste identification or waste authorization numbers. These numbers can be entered by the generator in box 11 (a-c). In addition, States may require generators to use box 11(c) to identify medical waste regulated under State law but not under Federal law.

Federal regulations require generators, transporters, intermediate handlers, and destination facilities to complete the form according to the following instructions.

Medical Waste Tracking Form Specific Instructions

The following describes each section of the Medical Waste Tracking Form and provides instructions for completing each of these sections (i.e., boxes). The waste generator completes Boxes 1-15, the transporter and/or intermediate handlers completes Boxes 16-21, and the owner or operator of the destination facility completes Boxes 22-23. The transporter may assist the generator in completing any of the boxes, but the generator is responsible for ensuring the accuracy of information entered on the form and *must* sign Box 15 after Boxes 1-14 are completed.

Box 1. *Generator's Name and Mailing Address.* Enter the name and mailing address of the generator. The mailing address should be the address to which intermediate handler or the destination facility will return the signed copy of the tracking form and should be for the location where the generator's tracking forms will be handled for purposes of recordkeeping and exception reporting (e.g., the company's billing office, corporate headquarters, or the actual site of generation).

While the address entered here need not identify the particular site of generation, the generator must maintain its records so that individual waste shipments (identified by a unique tracking form document number assigned by the generator, discussed next) can be associated with the actual sites of generation.

Box 2. *Tracking Form Number.* This is the unique number that the generator must assign to each shipment of regulated medical waste. It will ensure that each individual shipment can be identified and independently tracked from the site of generation. [The number could be the date of shipment or some other notation that the generator wishes to utilize.]

Box 3. *Telephone Number.* Enter the telephone number for the generator representative who can provide additional information about the shipment in the event of an emergency, or in the event the transporter, intermediate handler or destination facility requires it for other reasons (e.g., to inform the generator that an alternative disposal facility must be used).

Box 4. *State Permit or ID Number.* This is an *optional* entry, except when required by State law. Some States may assign a number or alphanumeric designation to uniquely identify each generator, and may require that the generator include this designation on each medical waste tracking form it initiates.

Box 5. *Transporter's Name, Mailing Address and EPA Medical Waste Identification Number.* Indicate in this space the name and address of the regulated medical waste transporter who will be the first transporter of the waste listed on the tracking form. The mailing address should be the business mailing address of the transporter. The transporter must fill in his EPA Medical Waste Identification Number for the State in which the waste was generated. If a number has not yet been assigned, the transporter must leave this box blank. The EPA Medical Waste Identification Number is assigned by EPA when the transporter notifies EPA.

Box 6. *Telephone Number.* Enter the telephone number of the transporter that the generator, intermediate handler or destination facility may call to obtain information regarding medical waste shipments.

Box 7. *State Transporter Permit or ID Number.* This is an optional entry to be utilized where States have assigned permit or identification numbers to each medical waste transporter and require that designation to be recorded on each tracking form. The number should be the permit or identification number used by the State in which the regulated medical waste was generated.

Box 8. *Destination Facility Name and Address.* The generator must enter the name and site address of the off-site destination facility (i.e., treatment and destruction or disposal facility) that the generator has specified to receive the regulated medical waste. The site address is necessary to inform the transporter where the shipment must be delivered. (If the generator does not have this information, the transporter may complete this section, but only before the generator signs the form. Transfer facilities and other temporary storage facilities used by transporters for storage of waste during ordinary transport must not be listed here as the destination facility.) Intermediate handlers used by the generator or transporter to either treat or destroy the waste (but not both) must not be listed here either.

Box 9. *Telephone Number.* Enter the destination facility's telephone number which a generator or transporter may call to obtain information regarding the status of a shipment.

Box 10. *State Permit or ID Number.* This is an *optional* box which must be filled out if this information is required by the State in which the destination facility is located. States may require that destination facility (i.e., treatment and destruction or disposal facilities) be permitted and they may require that a State-assigned unique permit or identification number be entered in this space.

Box 11. *U.S. EPA Waste Description.* The two Federally-regulated medical waste categories are listed in Boxes 11(a) and 11(b): Regulated Medical Waste (untreated); Regulated Medical Waste (treated). Box 11(c) is available for other State regulated waste. The generator must determine the categories of his waste, before completing Boxes 12 and 13. A definition of "waste category" is found in 40 CFR 259.10. [If States have a waste code, a waste authorization number, or a similar requirement, it may be inserted to the right of the waste category to which it applies.]

Box 12. *Total Number Containers.* The total number of containers (e.g., bags, boxes, pails, drums, etc.) for each of the applicable waste categories must be entered in the corresponding space.

Box 13. *Total Weight or Volume.* The total weight of the waste (excluding the container weight), by applicable waste category must be entered in the corresponding space. If the waste is oversized and is not packaged in a standard container, a volumetric measure may be used; however, the unit of measure must be noted in that space as well.

Box 14. *Special Handling Instructions and Additional Information.* Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information, including alternative treatment and/or disposal facility information, if necessary. Generators may also include in this box a written request for the destination facility to certify disposal of the regulated medical waste through signature and dating within this box. (Note: The signature in the Destination Facility Certification Box (Box 22) is *only* to be used to certify receipt of the waste at the time of delivery to the facility.)

For international shipments, generators must enter in this space the point of departure (city and State) for those wastes destined for treatment and destruction, or disposal outside the United States. This space may also be used if there is need to identify an intermediate handler and/or a third transporter. States may not require additional information to be provided in this space on the tracking form. However, other State-specific information requirements may be included on a separate, attached sheet.

This space should also be used to provide special instructions or additional information regarding oversized regulated medical waste that cannot be easily packaged in plastic bags or standard containers. In these instances, enter a description of the waste including whether the waste is untreated or treated, the number of pieces, and the approximate total weight.

Box 15. *Generator's Certification.* This statement, when signed by the generator, certifies that all information required to be provided by that generator is accurate (including any information provided by the transporter in Boxes 1-14), all documented wastes are properly prepared for transport and all applicable State and Federal requirements have been met. The generator must read, sign by hand, date this certification statement and enter the name of the generator into the certification statement. The persons signing the statement must be authorized to make the required declarations, in writing, by the person in charge of the generator's operations. The generator must make certain that Boxes 1-14 (except Boxes 4, 7, 10, and 11(c), which are optional unless required by the State) are completed prior to signing the form.

Box 16. *Transporter 1 Certification of Receipt.* The first transporter is required to acknowledge the acceptance of the waste shipment from the generator by signing the form in this space and recording the date of acceptance. Any discrepancies or other related information should be noted in the Discrepancy Box (Box 23) of the tracking form before signing it. In those instances when a transporter initiates a tracking form, he must complete Boxes 1-15 and must also certify receipt as transporter 1, if he is also the first transporter as identified in Box 5 (Transporter's Name and Mailing Address).

Box 17. *Transporter 2 or Intermediate Handler Name and Address, and EPA Medical Waste Identification Number.* In the event the waste shipment is to be transported by a second transporter or is taken to an intermediate handler, that recipient must enter its name and business mailing address information in this place, and their EPA Medical Waste Identification Number, if available.

Box 18. *Telephone Number.* Enter the telephone number of the second transporter or intermediate handler to be used when checking or investigating the status of a shipment.

Box 19. *State Transporter Permit or ID Number.* This is an *optional* entry. The secondary transporter or intermediate handler State-assigned permit or identification number should be entered in this space (see number 7 above).

Box 20. *Transporter 2 or Intermediate Handler Certification of Receipt.* A secondary transporter or intermediate handler is required to certify acceptance of the waste shipment by printing or typing the name of the person accepting the waste, recording the date of acceptance, and signing the form. Any discrepancies or other related information should be noted in the Discrepancy Box (Box 23) of the tracking form before signing this box.

Box 21. *New Tracking Form Number.* If the regulated medical waste shipment is consolidated or reassigned to a new tracking form, the new tracking form number must be recorded in this box on the original generator's form. (If the Covered State preprints forms and includes a State Tracking Form Number, that number should be entered in this space.) If the State does not include a preprinted number on the form the transporter or intermediate handler should enter its own unique tracking form number.

Box 22. *Destination Facility.* The authorized representative of the destination facility certifies receipt and acceptance of the shipment on behalf of the owner of the facility by completing this box. If no discrepancies are noted, the authorized representative should place a checkmark before the statement "received in accordance with items 11, 12, and 13," print or type his name, record the date of acceptance, and sign the box. If there are any discrepancies he should *not* place a check there. He should, instead, note the discrepancies in Box 23.

If for some reason the regulated medical waste was delivered to a facility other than that indicated in Box 8, then the authorized representative of the facility that accepted the waste completes Box 22, as indicated above, enters in Box 14 the name, address, telephone number and the facility permit or identification number, if any, of the facility accepting the waste.

Box 23. *Discrepancy Box.* The authorized representative of the destination (or alternate) facility, on behalf of the owner or operator, must note any discrepancy between the waste described on the tracking form and the waste actually received at the facility. (Note: in some instances, due to the consolidation or remanifesting provisions of this part, transporters and intermediate handlers may also need to record discrepancies.) All discrepancies must be noted by inclusion in Box 23. Owners and operators of facilities who cannot resolve discrepancies within 15 days of receiving a waste shipment must file a discrepancy report as required in 40 CFR 259.82. Discrepancy reports must be submitted to the appropriate State agencies and to the appropriate EPA Regional offices as required in § 259.82 of this part. EPA Regional office addresses are listed below.

EPA Regional Administrators

Regional Administrator, U.S. EPA Region I, J.F. Kennedy Federal Building., Boston, MA 02203

Regional Administrator, U.S. EPA Region II, 26 Federal Plaza, New York, NY 10278

Regional Administrator, U.S. EPA Region III, 5th and Walnut Streets, Philadelphia, PA 19106

Regional Administrator, U.S. EPA Region IV, 345 Courtland Street, NE, Atlanta, GA 30365

Regional Administrator, U.S. EPA Region V, 230 S. Dearborn Street, Chicago, IL 60604

Regional Administrator, U.S. EPA Region VI, 1201 Elm Street, Dallas, TX 75270

Regional Administrator, U.S. EPA Region VII, 324 East 11th Street, Kansas City, MO 64106

Regional Administrator, U.S. EPA Region VIII, 1860 Lincoln Street, Denver, CO 80295

Regional Administrator, U.S. EPA Region IX, 215 Fremont Street, San Francisco, CA 94105

Regional Administrator, U.S. EPA Region X, 1200 Sixth Avenue, Seattle, WA 98101

APPENDIX II TO PART 259—ON-SITE MEDICAL WASTE INCINERATOR REPORT AND INSTRUCTIONS

Page 1 of ___

ON-SITE MEDICAL WASTE INCINERATION REPORT

I. FACILITY INFORMATION

1. Reporting Period

☐ June 22, 1989 to December 22, 1989

☐ June 22, 1990 to December 22, 1990

2. Facility Name and Mailing Address

Facility Name

Mailing Address

City State Zip Code

3. Location of Incineration Facility

☐ Address of location is the same as mailing address in Box 2.

or

Street Address

City State Zip Code

4. Type of Facility

☐ Hospital ☐ Laboratory Facility ☐ Veterinary Clinic ☐ Private Practice or Clinic

☐ Funeral Home/Crematorium ☐ Other (Specify, ________________)

5. Contact Person at Facility

Name Title (___) Telephone Number

6. Waste Feed Information (total for all incinerators specified in Box 7)

A. Approximate Total Quantity of Regulated Medical Waste Incinerated: |_|_|_|_|_|_|_|_|_|_| Pounds/six-month reporting period

B. Approximate Percentage of Total Waste Incinerated that is Regulated Medical Waste |_|_|_|_| %

C. Approximate Quantity of Regulated Medical Waste Received from Sources Outside this Facility: |_|_|_|_|_|_|_|_|_|_| Pounds/six-month reporting period

Facility Name_________________________

Page ____ of ____

II. INCINERATION INFORMATION

7. Total Number of Incinerators that Incinerate Regulated Medical Waste at this Facility:

|_|_|_|

8 a. Incinerator Design Information

A. Age of Incineration unit: |_|_|_| Years

B. Type of Unit:

☐ Excess Air
☐ Starved Air
☐ Rotary Kiln
☐ Other (Specify, _________)

C. Number of Combustion Chambers:

☐ One Chamber
☐ Two Chambers
☐ Three or more Chambers

D. Design Charging Capacity: |_|_|_|_|_|_|_| Pounds per hour

8 b. Incinerator Design Information

A. Age of Incineration unit: |_|_|_| Years

B. Type of Unit:

☐ Excess Air
☐ Starved Air
☐ Rotary Kiln
☐ Other (Specify, _________)

C. Number of Combustion Chambers:

☐ One Chamber
☐ Two Chambers
☐ Three or more Chambers

D. Design Charging Capacity: |_|_|_|_|_|_|_| Pounds per hour

9. Certification

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative.

____________________	____________________	__________
Name	Title	Date

General Instructions

Authority

This information is required by EPA under the authorities of sections 11003 and 11004 of the Resource Conservation and Recovery Act. EPA expects that you will provide this information based on reasonably available records, or, in the absence of such records, on your knowledge.

Who Must Complete This Form?

This form must be completed by generators of regulated medical waste who:

- Are located in Covered States: and
- Use an on-site incinerator to burn regulated medical waste during the reporting periods described below.

Only complete this form for incinerators that burn regulated medical waste. Refer to 40 CFR 259.61 for recordkeeping requirements pertaining to this reporting form.

When to Complete This Form?

Generators who incinerate regulated medical waste on-site are required to submit the On-site Medical Waste Incinerator Report to EPA for two separate reporting periods.

The first report covers the period from June 22, 1989, to December 22, 1989. The submission date for the first reporting period is February 6, 1990.

The second report covers the period from June 22, 1990, to December 22, 1990. The submission date for the second reporting period is February 6, 1991.

Where to send this Report?

In each reporting period, submit two copies to: Chief, Waste Characterization Branch, Office of Solid Waste (OS-332), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

Instructions for Completing the Form

Boxes 1 through 5 require general information about the facility. Boxes 6 through 8 require specific information about the waste incinerated and technical information regarding the incinerators themselves. Box 9 requires the facility owner or operator to certify the accuracy of the information submitted. Begin with Box 1 and continue sequentially to each box. If there is more than one on-site incinerator used to incinerate regulated medical waste, complete Box 8(a) for the first incinerator and Box 8(b) for the second incinerator; for more than two incinerators, you will need to use an additional sheet(s) to provide the required incinerator information.

You will also need to sign the certification Box (Box 9) on each additional sheet.

Box 1. *Reporting Period.* Mark an "X" in the box that specifies the reporting period for the information you are submitting.

Box 2. *Facility Name and Mailing Address.* Enter the name and mailing address of the incineration facility.

Box 3. *Location of Incineration Facility.* If the location address of the incineration facility is the same as the mailing address entered in Box 2, mark an "X" in the designated box. If the location address is different from the mailing address, enter the location information.

Box 4. *Type of Facility.* Mark an "X" in the box that classifies the business or organization that owns or operates the incineration facility. If the categories do not accurately represent your facility, mark the "Other" category and specify the facility type in the space provided.

Box 5. *Contact Person at the Facility.* Enter the name, title, and telephone number of the person who is most knowledgeable about the incineration operations at your facility.

Box 6. *Waste Feed Information.* The questions in this box ask about quantities of regulated medical waste incinerated at your facility. When entering a response, right justify the entry (e.g., | | |2 |0 |0 |0 |0 | Pounds).

A. *Approximate Total Quantity of Regulated Medical Waste Incinerated.* Enter the total weight (in pounds) of the regulated medical waste incinerated at your facility (total of all incinerator units) during the six-month reporting period. To identify the quantities of regulated medical waste incinerated, refer to the operating logs kept for each incinerator at your facility as required under 40 CFR 259.61.

B. *Approximate Percentage of the Total Waste Incinerated that is Regulated Medical Waste.* Using the information from your operating log, calculate the percentage (by weight) of the total waste incinerated that is regulated medical waste. To do this, divide the amount of regulated medical waste incinerated by the total amount of waste incinerated. Multiply the result by 100. Enter the number in the space provided.

C. *Approximate Quantity of Regulated Medical Waste Received from Sources Outside this Facility.* Enter the total weight (in pounds) of regulated medical waste received from sources outside your facility during the six-month reporting period. An example of outside sources would include a facility that receives waste from a physician with an office several miles away.

Box 7. *Total Number of Incinerators at this Facility.* Enter the total number of incinerators that burn regulated medical waste at your facility. Only include incinerators that incinerate *regulated medical waste.*

Box 8. *Incinerator Design Information.* To complete Items A through D in this box, refer to design blue prints, manufacturer's information, or other sources.

A. *Age of Unit.* Enter the age of the incinerator unit in years.

B. *Type of Unit.* Mark an "X" in the box that describes this incinerator type.

- An "excess air" unit is usually a compact box-like structure with chambers and baffles, and it operates with high air flows to assure adequate combustion. It is usually loaded manually through a charging door.
- A "starved air" unit is usually cylindrical, but can be rectangular, and it typically has combustion air fed through the floor or on the sides. The waste is usually manually loaded, although larger units can be mechanically loaded.
- A "rotary kiln" unit is cylindrical and rotates about the lengthwise axis. If this incinerator is not described by any of the three groups listed, mark an "X" in the box labelled "other" and describe the unit in the space provided. If necessary, attach additional sheets.

C. *Number of Combustion Chambers.* Mark an "X" in the box that describes the number of combustion chambers in this incinerator.

D. *Design Charging Capacity.* Enter the maximum amount of waste that this incinerator is designed to burn, in pounds per hour. If you cannot locate any records, estimate the number of pounds per hour that this unit is designed to burn. [NOTE: When entering a quantitative response, such as, rates, weights or time, right justify the entry (e.g., | |2|0|0|0|0|)].

Box 9. *Certification.* After completing this form, the facility owner or an authorized representative must sign and date the certification and indicate his or her position.

APPENDIX III TO PART 259—TRANSPORTER REPORT FORM AND INSTRUCTIONS

Page 1 of __

TRANSPORTER REPORT

I. TRANSPORTER IDENTIFICATION INFORMATION

1. Reporting Period

☐ June 23, 1989 to December 19, 1989 ☐ June 18, 1990 to December 14, 1990

☐ December 20, 1989 to June 17, 1990 ☐ December 15, 1990 to June 12, 1991

2. Transporter Name and Mailing Address

Name

Address

City State Zip Code

3. EPA Medical Waste Identification Number

4. Certification for Intermediate Transporter

☐ Yes
☐ No
Signature

5. Contact Person

Name Title ( ) Telephone Number

6. Certification

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative.

Signature Title Date

II. DISPOSITION INFORMATION

7. Total Quantity of Regulated Medical Waste by Category and Destination

	Second Transporter or Transfer Facility	Intermediate Handler or Destination Facility
A. Untreated Waste	Pounds	Pounds
B. Treated Waste	Pounds	Pounds

ransporter Name or ID number ______________ page ___ of ___

III. GENERATOR IDENTIFICATION

8. Total Number of Generators From Whom Regulated Medical Waste was Accepted

(If your answer is "0", skip to section IV) |_|_|_|_|_|_|_|_|_|

9. Identity of Generators *Please Complete Sections A, B, and C for each Generator*

A. Name and Location of Generator ______________________ Generator Name ______________________ Street Address ______________________ City State Zip Code	**B. Type of Generator** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Accepted From the Generator** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Generator ______________________ Generator Name ______________________ Street Address ______________________ City State Zip Code	**B. Type of Generator** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Accepted From the Generator** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Generator ______________________ Generator Name ______________________ Street Address ______________________ City State Zip Code	**B. Type of Generator** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Accepted From the Generator** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Generator ______________________ Generator Name ______________________ Street Address ______________________ City State Zip Code	**B. Type of Generator** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Accepted From the Generator** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds

Transporter Name or ID Number ________________ page __ of __

IV. INTERMEDIATE HANDLER OR DESTINATION FACILITY IDENTIFICATION

10. Total Number of Intermediate Handlers or Destination Facilities to which Regulated Medical Waste was Delivered |_|_|_|_|_|_|_|_|_| *(If your answer is "0", do not continue with this section)*

11. Identity of Intermediate Handlers or Destination Facilities

Please Complete Sections A and B for each Facility

A. Name and Location of Facility Facility Name Street Address City State Zip Code	**B. Type of Facility** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Delivered to the Facility** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Facility Facility Name Street Address City State Zip Code	**B. Type of Facility** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Delivered to the Facility** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Facility Facility Name Street Address City State Zip Code	**B. Type of Facility** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Delivered to the Facility** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds
A. Name and Location of Facility Facility Name Street Address City State Zip Code	**B. Type of Facility** |_| *Refer to instructions for code* **C. Quantity of Regulated Medical Waste Delivered to the Facility** Untreated |_|_|_|_|_|_|_|_|_| Pounds Treated |_|_|_|_|_|_|_|_|_| Pounds

General Information

Authority

This information is required by EPA under the authorities of Section 11003 and 11004 of the Resource Conservation and Recovery Act. EPA expects that you will provide this information based on the records you are required to keep as a medical waste transporter.

Who Must Complete This Report?

This report must be completed by transporters of regulated medical waste who accept and transport regulated medical waste generated in a Covered State, and who are required to obtain an EPA Medical Waste Identification Number under § 259.72 of this Part.

What Type of Information Is Required By This Report?

The Transporter Report Form collects information on the source and disposition of regulated medical waste handled by a transporter. The form is divided into four sections:

I. Transporter Identification Information
II. Disposition Information
III. Generator Identification
IV. Intermediate Handlers and Destination Facility Identification

How to Complete These Forms?

A separate copy of this form must be completed for each Covered State in which the regulated medical waste which you have transported, during the reporting period was generated.

[NOTE: If you did not transport regulated medical waste generated in a Covered State during a reporting period, you do not have to submit a Transporter Report Form for that Covered State for that reporting period]. The examples described below illustrate who (i.e., those transporters) must report, and for which Covered States:

EXAMPLE 1: Company X accepts waste generated in New York. (In this scenario New York is assumed to be a Covered State and New Hampshire, a non-Covered State.)

Company X accepts regulated medical waste from six generators located in New York and transports the waste for disposal to two facilities in New Hampshire. (Because New York is a Covered State under the demonstration program, Company X must notify EPA that it accepts and transports regulated medical waste generated in a Covered State. EPA will issue an EPA Medical Waste Identification Number to Company X for the State of New York.)

In this case, Transporter X only accepts and transports regulated medical waste from one Covered State and, thus, will only have to complete one report, for the State of New York.

EXAMPLE 2: Company Y accepts regulated medical waste generated in New Jersey and New York. (In this scenario both New Jersey and New York are assumed to be Covered States, and New Hampshire a non-Covered State.)

Company Y accepts regulated medical waste from four generators in New York and from five generators in New Jersey. Company Y delivers the waste accepted from these generators to a destination facility in New Hampshire. (Company Y notifies EPA that it accepts and transports regulated medical waste that is generated in two Covered States. EPA issues two EPA Medical Waste Identification Numbers to Company Y, the first identification number is for the transport of regulated medical waste generated in New York and the second number is for the transport of regulated medical waste generated in New Jersey.)

Because Company Y has accepted waste generated in two Covered States, the company will be required to complete and submit two Transporter Report Forms, one for the waste from the four generators in New York and a separate Transporter Report Form for the five generators in New Jersey.

EXAMPLE 3: Three transporter companies, Company X, Company B, and Company Y, transport regulated medical waste generated in New York. (Again, in this scenario New York is assumed to be a Covered State and New Hampshire, a non-Covered State.)

Company X accepts regulated medical waste from six generators located in New York and transports the waste to Company B who is an intermediate transporter located in New Hampshire. Company B accepts the waste from Company X and transports the waste to Company Y, also located in New Hampshire, who then delivers the waste to a destination facility in New Hampshire. (Because New York is a Covered State, all three companies (X, B, and Y) must notify EPA that they accept and transport regulated medical waste generated in a Covered State.)

Each transporter company must also complete a separate Transporter Report Form. In completing the form, Company X must supply information on each New York generator from whom it accepts regulated medical waste, and on the quantities it accepted. Company Y must supply information on the disposal facility to which it delivers the regulated medical waste and the quantities it delivered. Company B must only supply information to verify it is an "intermediate transporter" as it neither accepted waste directly from a generator nor delivered waste to an intermediate handler or destination facility.

When to Complete the Report?

Complete each Transporter Report using the information that can be obtained from the tracking forms and transporter logs. Use only those tracking forms and logs that have certification receipt dates in Box 16 of the tracking form, that fall within the reporting periods identified below. Submit the report no later than 45 days following each reporting period. The schedule of submission dates are as follows:

Reporting period	Submission date
June 23, 1989 to December 19, 1989.	February 2, 1990.
December 20, 1989 to June 17, 1990.	August 1, 1990.
June 18, 1990 to December 14, 1990.	January 28, 1991.
December 15, 1990 to June 12, 1991.	July 27, 1991.

Where to Send This Report?

Copies of each report must be submitted as follows:

(1) One copy must be submitted to: Chief, Waste Characterization Branch (OS-332), Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 24060.

(2) A second copy must be submitted to the Director of the waste management agency in the State for which the transporter has compiled the report.

Instructions for Completing the Form

The item by item instructions that follow explain for each type of transporter which Sections I-IV they must complete.

NOTE: If your company accepts and transports regulated medical waste from generators located in a Covered State and you have not been issued an EPA Medical Waste Identification Number, you still must complete this form for each Covered State's waste which you have transported during the reporting period.

After completing the entire form, number each page appropriately in the space provided (e.g., page 14 of 15).]

Section I. Transporter Identification Information

Boxes 1 through 6 requires the submittal of information on the reporting period and your transporter operations. Begin with Box 1 and continue sequentially with each Box.

Box 1. *Reporting Period.* Mark an "X" in the box that specifies the reporting period for the information you are submitting.

Box 2. *Transporter Name and Mailing Address.* Enter the name and the mailing address of the transporter who is completing this report.

Box 3. *EPA Medical Waste Identification Number.* Enter the 12 digit identification number assigned to your company's transporter operations in the Covered State for which you are completing this form. If you do not have an identification number, enter the name of the Covered State for which you are completing this form.

Box 4. *Certification for Intermediate Transporter.* Transporters who (1) solely accept regulated medical waste from transporters who have, themselves, transported the waste, and (2) deliver such waste only to another transporter for further movement, are considered "intermediate transporters" and need only complete Boxes 1 through 6. If you are an intermediate transporter, mark an "X" in the box corresponding to "YES" and enter your signature after the box. If you are not an intermediate transporter, mark an "X" in the box corresponding to "NO". In both cases, continue on to Box 5.

Box 5. *Contact Person.* Enter the name, title, and telephone number of the person who is most knowledgeable about your transportation operations, or the person who is responsible for the information in this report.

Box 6. *Certification.* After completing this form, the company owner or an authorized representative must sign and date the certification and indicate his or her title or position. If your organization has no legal owner (e.g., a local government entity), the individual within your organization who is responsible for the information in this report must sign and date the certification and indicate his or her position.

If you were an intermediate transporter during the reporting period marked in Box 1, you do not need to complete the remaining sections of this report. If, however, you accepted regulated medical waste directly from a generator located in a Covered State, or you delivered such waste to an intermediate handler or destination facility during the reporting period marked in Box 1, continue with Sections II, III and IV and follow the instructions.

Section II. Disposition Information

This section requires submittal of information on the quantities of regulated medical waste you transported during the reporting period marked in Box 1.

Box 7. *Total Quantity of Regulated Medical Waste by Category and Destination.* This box requests information on the total quantity of (A) untreated and (B) treated regulated medical waste you accepted for transport during the reporting period. The total quantity of waste should only include the regulated medical waste you transported that was generated in the Covered State for which you are completing this form. For each category of waste, enter the quantity of waste (in pounds) that was delivered (1) to a second transporter or transfer facility and (2) to an intermediate handler or destination facility. If either category of waste was not delivered to a facility, enter "0" for that category and facility combination. If you did not deliver waste to one of the types of facilities, enter "0" for that facility type. Right justify each entry (e.g., | |2 |0 |0 |0 |).

Section III. Generator Identification

This section requires the submittal of information regarding the generators from whom you accepted regulated medical waste during the reporting period marked in Box I.

Box 8. *Total Number of Generators from whom Regulated Medical Waste was Accepted.* Enter the total number of generators from whom you accepted regulated medical waste for transport during the reporting period. Include only those generators located in the Covered State for which you are completing this form. If your company did not pick up any regulated medical waste directly from a generator, enter "0" in the box and skip to Section IV. Right justify each entry (e.g.,| | |1 |4 |3 |).

Box 9. *Identity of Generators.* Complete Boxes 9A through 9C *on each individual generator* in the Covered State from whom you accepted regulated medical waste during the reporting period. This form provides space for identification of four generators. If you accepted waste from more than four generators, copy this page as needed and provide the information on each generator. The number of generators entered in Box 8 must equal the total number of all generators identified in Box 9.

9A. *Name and Location of Generator.* Enter the name and the address representing the physical location of the generator (i.e., the location at which the waste is picked up).

9B. *Type of Generator.* Enter one of the following codes that best classifies the type of generator. Use your best judgment as to the generator's type.

Code	Generator type
01	Hospital—includes waste generated in all laboratories and departments.
02	Laboratory—including clinical and research laboratories generating regulated medical waste.
03	Clinic—includes group-practice facilities that provide ambulatory care of one or more specialties such as hemodialysis, prenatal, or post partum care, surgical centers, family practice centers, etc. Also includes outpatient drug treatment facilities, and nonresidential medical day care facilities.
04	Physician—includes single and multiple private-practice physician offices.
05	Dentist—includes single and multiple private-practice dentist offices.
06	Veterinarian—includes single and multiple private-practice veterinarian offices.
07	Long Term or Residential Health Care Facility—includes facilities providing skilled or non-skilled care such as nursing homes and residential drug treatment centers.
08	Blood Banks—includes freestanding blood banks (not at a hospital) and their mobile off-site activities.
09	Other—includes any other facility generating regulated medical waste such as ambulance services, infirmaries, etc. If you enter this code, specify the type of generator in the space after the code.

9C. *Quantity of Regulated Medical Waste Accepted from the Generator.* For each category (untreated and treated), enter the amount of waste (in pounds) that you accepted from the generator during the reporting period. If you did not accept waste in one of the categories, enter "0." Right justify each entry (e.g., | | |2|0|0|0|0| pounds).

Section IV. Intermediate Handlers or Destination Facilities Identifiction

Boxes 10 and 11 requires the submittal of information regarding the intermediate handlers and destination facilities to which you delivered regulated medical waste during the reporting period marked in Box I.

Box 10. *Total Number of Intermediate Handlers and Destination Facilities to which Regulated Medical Waste was Delivered.* Enter the total number of intermediate handlers and destination facilities to which you delivered regulated medical waste during the reporting period. This box should include *all* facilities (in both Covered and non-Covered States) that accepted the regulated medical waste listed in Box 7. If you did not deliver any regulated medical waste to an intermediate handler or destination facility during the reporting period enter "0" in the Box and do not complete the remainder of this section. Right justify your entry (e.g., | | |2|9|).

Box 11. *Identity of Intermediate Handlers and Destination Facilities.* Complete Boxes 11A through 11C *identifying each individual intermediate handler and destination facility* to which you delivered regulated medical waste generated in the Covered State for which this form is completed. This form provides spaces for identification of four facilities. If you delivered waste to more than four facilities, copy this page as needed and provide the requested information for each facility. The number of facilities entered in Box 10 must equal the number of facilities identified in Box 11.

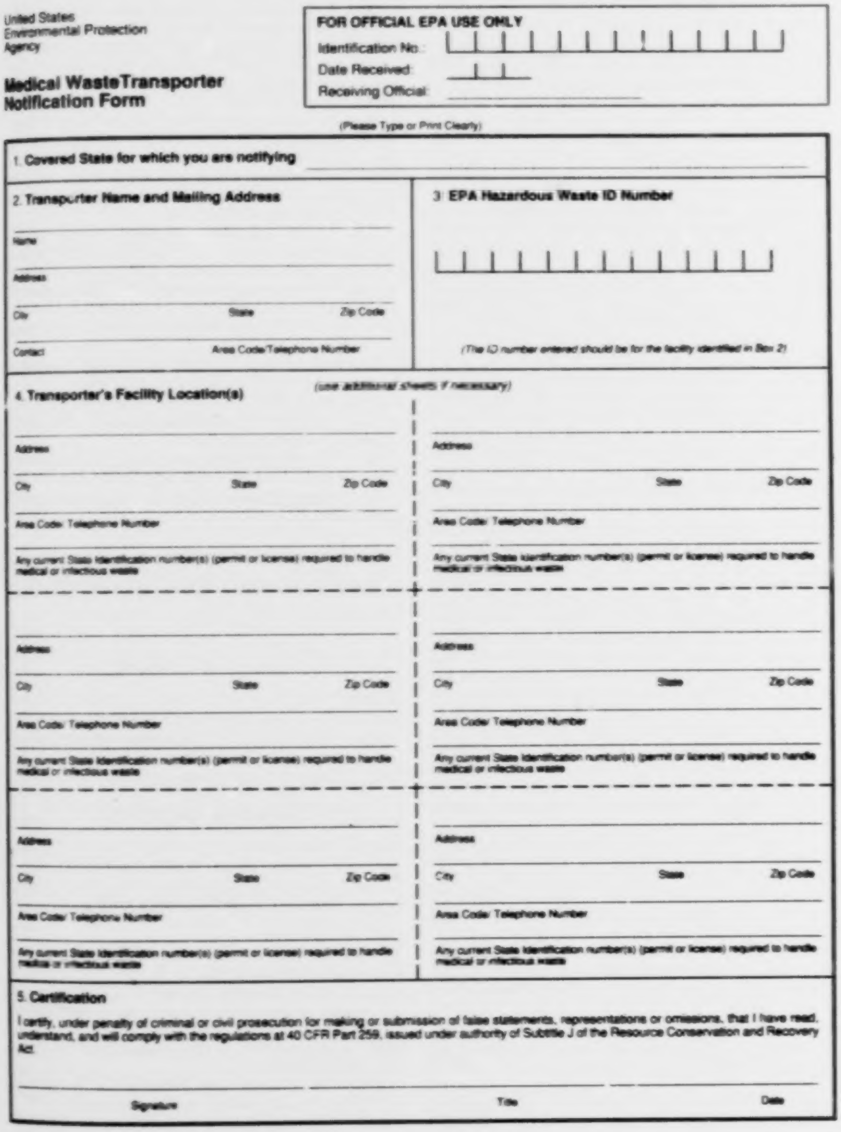
11A. *Name and Location of Facility.* Enter the name and the address representing the physical location of the facility.

11B. *Type of Facility.* Enter one of the following codes that best classifies the type of facility:

Code	Facility type
1	Landfill.
2	Incinerator.
3	Treatment (other than incinerator).
4	Destruction Facility (other than incinerator).
5	Treatment and Destruction Facility (other than incinerator).

11C. *Quantity of Regulated Medical Waste Delivered to the Facility.* For each category (untreated and treated) enter the quantity of waste (in pounds) that you accepted for transport to the intermediate handler or destination facility during the reporting period. If you did not deliver waste in one of the categories enter "0" for that category. Right justify each entry (e.g., |0|0|2|0|0|0| pounds).

APPENDIX IV TO PART 259—RECOMMMDED MEDICAL WASTE TRANSPORTER NOTIFICATION FORM AND INSTRUCTIONS



United States
Environmental Protection
Agency

Medical Waste Transporter Notification Form

FOR OFFICIAL EPA USE ONLY
Identification No.:
Date Received:
Receiving Official:

(Please Type or Print Clearly)

1. **Covered State for which you are notifying** ____________________

2. **Transporter Name and Mailing Address**

Name
Address
City State Zip Code
Contact Area Code/Telephone Number

3. **EPA Hazardous Waste ID Number**

(The ID number entered should be for the facility identified in Box 2)

4. **Transporter's Facility Location(s)** (use additional sheets if necessary)

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

Address
City State Zip Code
Area Code/ Telephone Number
Any current State identification number(s) (permit or license) required to handle medical or infectious waste

5. **Certification**

I certify, under penalty of criminal or civil prosecution for making or submission of false statements, representations or omissions, that I have read, understand, and will comply with the regulations at 40 CFR Part 259, issued under authority of Subtitle J of the Resource Conservation and Recovery Act.

Signature Title Date

INSTRUCTIONS FOR COMPLETING THE MEDICAL WASTE TRANSPORTER NOTIFICATION FORM

General Information

Authority

This information is required by the EPA under authority of Section 11003 and 11004 of the Resource Conservation and Recovery Act.

Who Must Notify: Transporters who transport regulated medical waste that is generated in a Covered State must notify the U.S. Environmental Protection Agency for each Covered State's regulated medical waste they intend to transport. This requirement extends to transporters who do not actually transport the waste within that Covered State's boundaries but who transport the waste, generated in the Covered State, outside that Covered State's boundaries.

Transporters planning such activity may either complete a Notification Form or submit a letter containing the information required in 40 CFR 259.72(b). EPA will then issue a Medical Waste Identification Number unique to that transporter for each Covered State for which they are notifying. That number will be used to identify regulated medical waste transporters and can be used by generators to verify that the transporter has notified EPA of his intent to transport waste from their Covered State.

When to Notify: Notification must be submitted for a Covered State before the transporter may accept regulated medical waste generated in that Covered State. Transporters may, however, accept such waste once they have submitted their notification, but before receiving their identification number. Upon receipt of that number, the transporter must enter it in Box 5 of the Medical Waste Tracking Form, when that form is required. Additionally, the transporter must enter that number in Box 17 of the Tracking Form when acting as a secondary transporter, and in Box 1 when initiating a tracking form for load consolidation purposes.

Where to Send Notification: Two copies of the completed Notification Form, for each Covered State, must be sent to: Chief, Waste Characterization Branch, Environmental Protection Agency (OS-332) 401 M Street, SW., Washington, D.C. 20460.

One copy must also be sent to the Director of the waste management agency in the State for which the transporter is notifying.

Notification Form Instructions

NOTE: All information must be typed or printed clearly.

Box 1. *Covered State for which you are notifying.* Enter the name of the Covered State of origin of the regulated medical waste(s) you intend to collect and/or transport. Enter only one State in this space; if you intend to transport waste from more than one Covered State you must submit a separate Notification Form for each of those States.

Box 2. *Transporter Name and Mailing Address.* Enter your organization's name, mailing address, the name of a contact person at that location who is knowledgeable about your operations, and include that person's telephone number.

Box 3. *EPA Hazardous Waste Identification Numbers.* If the facility identified in Box 2 has an EPA Hazardous Waste Identification Number, enter the EPA-assigned 12-character hazardous waste identification number for the facility.

Box 4. *Transporter's Facility Location(s).* Enter the address, facility telephone number and any current State medical or infectious waste permit or license numbers for each transportation or transfer facility located within the Covered State identified in Box 1.

If there are more than four such facilities in that Covered State you will need to use an additional sheet(s) to provide the required facility information; attach the additional sheets to the first.

Box 5. *Certification.* The Certification Statement must be read and hand signed by a corporate officer or the owner/operator of the transporter company.

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

Subpart A—General

Sec.
260.1 Purpose, scope, and applicability.
260.2 Availability of information; confidentiality of information.
260.3 Use of number and gender.

Subpart B—Definitions

260.10 Definitions.
260.11 References.

Subpart C—Rulemaking Petitions

260.20 General.
260.21 Petitions for equivalent testing or analytical methods.
260.22 Petitions to amend Part 261 to exclude a waste produced at a particular facility.
260.30 Variances from classification as a solid waste.
260.31 Standards and criteria for variances from classification as a solid waste.
260.32 Variances to be classified as a boiler.
260.33 Procedures for variances from classification as a solid waste or to be classified as a boiler.

Sec.

260.40 Additional regulation of certain hazardous waste recycling activities on a case-by-case basis.

260.41 Procedures for case-by-case regulation of hazardous waste recycling activities.

APPENDIX I—OVERVIEW OF SUBTITLE C REGULATIONS

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

SOURCE: 45 FR 33073, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: The reporting or recordkeeping provisions included in the final rule published at 47 FR 32274, July 26, 1982, will be submitted for approval to the Office of Management and Budget (OMB), and will not become effective until OMB approval has been obtained. EPA will publish a notice of the effective date of the reporting and recordkeeping provisions of this rule after it obtains OMB approval.

Subpart A—General

§ 260.1 Purpose, scope, and applicability.

(a) This part provides definitions of terms, general standards, and overview information applicable to Parts 260 through 265 and 268 of this chapter.

(b) In this part: (1) Section 260.2 sets forth the rules that EPA will use in making information it receives available to the public and sets forth the requirements that generators, transporters, or owners or operators of treatment, storage, or disposal facilities must follow to assert claims of business confidentiality with respect to information that is submitted to EPA under Parts 260 through 265 and 268 of this chapter.

(2) Section 260.3 establishes rules of grammatical construction for Parts 260 through 265 and 268 of this chapter.

(3) Section 260.10 defines terms which are used in Parts 260 through 265 and 268 of this chapter.

(4) Section 260.20 establishes procedures for petitioning EPA to amend, modify, or revoke any provision of Parts 260 through 265 and 268 of this chapter and establishes procedures governing EPA's action on such petitions.

(5) Section 260.21 establishes procedures for petitioning EPA to approve testing methods as equivalent to those prescribed in Parts 261, 264, or 265 of this chapter.

(6) Section 260.22 establishes procedures for petitioning EPA to amend Subpart D of Part 261 to exclude a waste from a particular facility.

[45 FR 33073, May 19, 1980, as amended at 51 FR 40636, Nov. 7, 1986]

§ 260.2 Availability of information; confidentiality of information.

(a) Any information provided to EPA under Parts 260 through 265 and 268 of this chapter will be made available to the public to the extent and in the manner authorized by the Freedom of Information Act, 5 U.S.C. section 552, section 3007(b) of RCRA and EPA regulations implementing the Freedom of Information Act and section 3007(b), Part 2 of this chapter, as applicable.

(b) Any person who submits information to EPA in accordance with Parts 260 through 266 and 268 of this chapter may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in § 2.203(b) of this chapter. Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Part 2, Subpart B, of this chapter except that information required by § 262.53(a) which is submitted in notification of intent to export a hazardous waste will be provided to the Department of State and the appropriate authorities in a receiving country regardless of any claims of confidentiality. However, if no such claim accompanies the information when it is received by EPA, it may be made available to the public without further notice to the person submitting it.

[45 FR 33073, May 19, 1980, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40636, Nov. 7, 1986]

§ 260.3 Use of number and gender.

As used in Parts 260 through 265 and 268 of this chapter:

(a) Words in the masculine gender also include the feminine and neuter genders; and

(b) Words in the singular include the plural; and

(c) Words in the plural include the singular.

[45 FR 33073, May 19, 1980, as amended at 51 FR 40636, Nov. 7, 1986]

Subpart B—Definitions

§ 260.10 Definitions.

When used in Parts 260 through 265 and 268 of this chapter, the following terms have the meanings given below:

Above ground tank means a device meeting the definition of "tank" in § 260.10 and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

Act or *RCRA* means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901 et seq.

Active life of a facility means the period from the initial receipt of hazardous waste at the facility until the Regional Administrator receives certification of final closure.

Active portion means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after the effective date of Part 261 of this chapter and which is not a closed portion. (See also "closed portion" and "inactive portion".)

Administrator means the Administrator of the Environmental Protection Agency, or his designee.

Ancillary equipment means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal off-site.

Aquifer means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

Authorized representative means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility.

Boiler means an enclosed device using controlled flame combustion and having the following characteristics:

(1)(i) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(ii) The unit's combustion chamber and primary energy recovery sections(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(iii) While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(iv) The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(2) The unit is one which the Regional Administrator has determined, on a case-by-case basis, to be a boiler,

after considering the standards in § 260.32.

Certification means a statement of professional opinion based upon knowledge and belief.

Closed portion means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

Component means either the tank or ancillary equipment of a tank system.

Confined aquifer means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Contingency plan means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

Corrosion expert means a person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

Designated facility means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of Parts 270 and 124 of this chapter, a permit from a State authorized in accordance with Part 271 of this chapter, or that is regulated under § 261.6(c)(2) or Subpart F of Part 266 of this chapter, and that has been designated on the manifest by the generator pursuant to § 262.20.

Dike means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

Discharge or *hazardous waste discharge* means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

Disposal facility means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

Elementary neutralization unit means a device which:

(1) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in § 261.22 of this chapter, or they are listed in Subpart D of Part 261 of the chapter only for this reason; and

(2) Meets the definition of tank, tank system, container, transport vehicle, or vessel in § 260.10 of this chapter.

EPA hazardous waste number means the number assigned by EPA to each hazardous waste listed in Part 261, Subpart D, of this chapter and to each characteristic identified in Part 261, Subpart C, of this chapter.

EPA identification number means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

EPA region means the states and territories found in any one of the following ten regions:

Region I—Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

Region II—New York, New Jersey, Commonwealth of Puerto Rico, and the U.S. Virgin Islands.
Region III—Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.
Region IV—Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.
Region V—Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio.
Region VI—New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.
Region VII—Nebraska, Kansas, Missouri, and Iowa.
Region VIII—Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.
Region IX—California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.
Region X—Washington, Oregon, Idaho, and Alaska.

Equivalent method means any testing or analytical method approved by the Administrator under §§ 260.20 and 260.21.

Existing hazardous waste management (HWM) facility or *existing facility* means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(1) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(2)(i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the facility to be completed within a reasonable time.

Existing portion means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

Existing tank system or *existing component* means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all Federal, State, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either (1) a continuous on-site physical construction or installation program has begun, or (2) the owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for physical construction of the site or installation of the tank system to be completed within a reasonable time.

Facility means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

Federal agency means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

Federal, State and local approvals or permits necessary to begin physical construction means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

Final closure means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under Parts 264 and 265 of this chapter are no longer conducted at the facility unless subject to the provisions in § 262.34.

Food-chain crops means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

Free liquids means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

Freeboard means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

Generator means any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in § 261.3 of this chapter.

Hazardous waste constituent means a constituent that caused the Administrator to list the hazardous waste in Part 261, Subpart D, of this chapter, or a constituent listed in Table 1 of § 261.24 of this chapter.

Hazardous waste management unit is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

In operation refers to a facility which is treating, storing, or disposing of hazardous waste.

Inactive portion means that portion of a facility which is not operated after the effective date of Part 261 of this chapter. (See also "active portion" and "closed portion".)

Incinerator means any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.

Incompatible waste means a hazardous waste which is unsuitable for:

(1) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(2) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(See Part 265, Appendix V, of this chapter for examples.)

Individual generation site means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

Industrial furnace means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy:

(1) Cement kilns

(2) Lime kilns

(3) Aggregate kilns

(4) Phosphate kilns

(5) Coke ovens

(6) Blast furnaces

(7) Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces)

(8) Titanium dioxide chloride process oxidation reactors

(9) Methane reforming furnaces

(10) Pulping liquor recovery furnaces

(11) Combustion devices used in the recovery of sulfur values from spent sulfuric acid

(12) Such other devices as the Administrator may, after notice and comment, add to this list on the basis of one or more of the following factors:

(i) The design and use of the device primarily to accomplish recovery of material products;

(ii) The use of the device to burn or reduce raw materials to make a material product;

(iii) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

(iv) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(v) The use of the device in common industrial practice to produce a material product; and

(vi) Other factors, as appropriate.

Inground tank means a device meeting the definition of "tank" in § 260.10 whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

Injection well means a well into which fluids are injected. (See also "underground injection".)

Inner liner means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

Installation inspector means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

International shipment means the transportation of hazardous waste into or out of the jurisdiction of the United States.

Landfill means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, or a cave.

Landfill cell means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

Land treatment facility means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

Leachate means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

Leak-detection system means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

Liner means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

Management or *hazardous waste management* means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

Manifest means the shipping document EPA form 8700-22 and, if necessary, EPA form 8700-22A, originated and signed by the generator in accordance with the instructions included in the Appendix to Part 262.

Manifest document number means the U.S. EPA twelve digit identification number assigned to the generator plus a unique five digit document number assigned to the Manifest by the generator for recording and reporting purposes.

Mining overburden returned to the mine site means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

Miscellaneous unit means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR Part 146, or unit eligible for a research, development, and demonstration permit under § 270.65.

Movement means that hazardous waste transported to a facility in an individual vehicle.

New hazardous waste management facility or *new facility* means a facility which began operation, or for which construction commenced after October 21, 1976. (See also "Existing hazardous waste management facility".)

New tank system or *new tank component* means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986; except, however, for purposes of § 264.193(g)(2) and § 265.193(g)(2), a new tank system is one for which construction commences after July 14, 1986. (See also "existing tank system.")

On ground tank means a device meeting the definition of "tank" in § 260.10 and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

On-site means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

Open burning means the combustion of any material without the following characteristics:

(1) Control of combustion air to maintain adequate temperature for efficient combustion,

(2) Containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and

(3) Control of emission of the gaseous combustion products.

(See also "incineration" and "thermal treatment".)

Operator means the person responsible for the overall operation of a facility.

Owner means the person who owns a facility or part of a facility.

Partial closure means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of Parts 264 and 265 of this chapter at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

Person means an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

Personnel or *facility personnel* means all persons who work, at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Part 264 or 265 of this chapter.

Pile means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage.

Point source means any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Publicly owned treatment works or *POTW* means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality" (as defined by section 502(4) of the CWA). This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator for the EPA

Region in which the facility is located, or his designee.

Representative sample means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole.

Run-off means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

Run-on means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

Saturated zone or *zone of saturation* means that part of the earth's crust in which all voids are filled with water.

Sludge means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

Small Quantity Generator means a generator who generates less than 1000 kg of hazardous waste in a calendar month.

Solid waste means a solid waste as defined in § 261.2 of this chapter.

State means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Storage means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

Sump means any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serves to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities.

Surface impoundment or *impoundment* means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

Tank system means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

Thermal treatment means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. (See also "incinerator" and "open burning".)

Totally enclosed treatment facility means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

Transfer facility means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

Transport vehicle means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

Transportation means the movement of hazardous waste by air, rail, highway, or water.

Transporter means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

Treatability Study means a study in which a hazardous waste is subjected to a treatment process to determine:

(1) Whether the waste is amenable to the treatment process, (2) what pretreatment (if any) is required, (3) the optimal process conditions needed to achieve the desired treatment, (4) the efficiency of a treatment process for a specific waste or wastes, or (5) the characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purpose of the § 261.4 (e) and (f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

Treatment zone means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

Underground injection means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

Underground tank means a device meeting the definition of "tank" in § 260.10 whose entire surface area is totally below the surface of and covered by the ground.

Unfit-for use tank system means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

Unsaturated zone or *zone of aeration* means the zone between the land surface and the water table.

United States means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Uppermost aquifer means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

Vessel includes every description of watercraft, used or capable of being used as a means of transportation on the water.

Wastewater treatment unit means a device which:

(1) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and

(2) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in § 261.3 of this chapter, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in § 261.3 of this chapter, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this Chapter; and

(3) Meets the definition of tank or tank system in § 260.10 of this chapter.

Water (bulk shipment) means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

Well means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

Well injection: (See "underground injection".)

Zone of engineering control means an area under the control of the owner/operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to ground water or surface water.

[45 FR 33073, May 19, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 260.10, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 260.11 References.

(a) When used in Parts 260 through 270 of this chapter, the following publications are incorporated by reference:

"ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," ASTM Standard D-3278-78, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"ASTM Standard Test Methods for Flash Point by Pensky-Martens Closed Tester," ASTM Standard D-93-79 or D-93-80. D-93-80 is available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 [Second Edition, 1982 as amended by Update I (April, 1984), and Update II (April, 1985)]. The second edition of SW-846 and Updates I and II are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4600, as document no. PB 87-120-291. The cost is $48.95 for paper and $13.50 for microfiche.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, NW, Washington, DC 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the FEDERAL REGISTER.

[46 FR 35247, July 7, 1981, as amended at 50 FR 18374, Apr. 30, 1985; 52 FR 8073, Mar. 16, 1987; 52 FR 41295, Oct. 27, 1987]

Subpart C—Rulemaking Petitions

§ 260.20 General.

(a) Any person may petition the Administrator to modify or revoke any provision in Parts 260 through 265 and 268 of this chapter. This section sets forth general requirements which apply to all such petitions. Section 260.21 sets forth additional requirements for petitions to add a testing or analytical method to Part 261, 264 or 265. Section 260.22 sets forth additional requirements for petitions to exclude a waste at a particular facility from § 261.3 of this chapter or the lists of hazardous wastes in Subpart D of Part 261.

(b) Each petition must be submitted to the Administrator by certified mail and must include:

(1) The petitioner's name and address;

(2) A statement of the petitioner's interest in the proposed action;

(3) A description of the proposed action, including (where appropriate) suggested regulatory language; and

(4) A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

(c) The Administrator will make a tentative decision to grant or deny a petition and will publish notice of such tentative decision, either in the form of an advanced notice of proposed rulemaking, a proposed rule, or a tentative determination to deny the petition, in the FEDERAL REGISTER for written public comment.

(d) Upon the written request of any interested person, the Administrator may, at his discretion, hold an informal public hearing to consider oral comments on the tentative decision. A person requesting a hearing must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The Administrator may in any case decide on his own motion to hold an informal public hearing.

(e) After evaluating all public comments the Administrator will make a final decision by publishing in the FEDERAL REGISTER a regulatory amendment or a denial of the petition.

[45 FR 33073, May 19, 1980, as amended at 51 FR 40636, Nov. 7, 1986]

§ 260.21 Petitions for equivalent testing or analytical methods.

(a) Any person seeking to add a testing or analytical method to Part 261, 264, or 265 of this chapter may petition for a regulatory amendment under this section and § 260.20. To be successful, the person must demonstrate to the satisfaction of the Administrator that the proposed method is equal to or superior to the corresponding method prescribed in Part 261, 264, or 265 of this chapter, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

(b) Each petition must include, in addition to the information required by § 260.20(b):

(1) A full description of the proposed method, including all procedural steps and equipment used in the method;

(2) A description of the types of wastes or waste matrices for which the proposed method may be used;

(3) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in Part 261, 264, or 265 of this chapter;

(4) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and

(5) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent method, the Administrator may request any additional information on the proposed method which he may reasonably require to evaluate the method.

(d) If the Administrator amends the regulations to permit use of a new testing method, the method will be incorporated in "Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC 20460.

[45 FR 33073, May 19, 1980, as amended at 49 FR 47391, Dec. 4, 1984]

§ 260.22 Petitions to amend Part 261 to exclude a waste produced at a particular facility.

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in Subpart D of Part 261 may petition for a regulatory amendment under this section and § 260.20. To be successful:

(1) The petitioner must demonstrate to the satisfaction of the Administrator that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an actutely hazardous waste; and

(2) Based on a complete application, the Administrator must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(b) The procedures in this Section and § 260.20 may also be used to petition the Administrator for a regulatory amendment to exclude from § 261.3(a)(2)(ii) or (c), a waste which is described in these Sections and is either a waste listed in Subpart D, or is derived from a waste listed in Subpart D. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner must make the same demonstration as required by paragraph (a) of this section. Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration must be made with respect to the waste mixture as a whole; analyses must be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of Subpart C of Part 261.

(c) If the waste is listed with codes "I", "C", "R", or "E", in Subpart D,

(1) The petitioner must show that the waste does not exhibit the relevant characteristic for which the waste was listed as defined in § 261.21, § 261.22, § 261.23, or § 261.24 using any applicable methods prescribed therein. The petitioner also must show that the waste does not exhibit any of the

other characteristics defined in § 261.21, § 261.22, § 261.23, or § 261.24 using any applicable methods prescribed therein;

(2) Based on a complete application, the Administrator must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(d) If the waste is listed with code "T" in Subpart D,

(1) The petitioner must demonstrate that the waste:

(i) Does not contain the constituent or constituents (as defined in Appendix VII of Part 261) that caused the Administrator to list the waste, using the appropriate test methods prescribed in Appendix III; or

(ii) Although containing one or more of the hazrdous constituents (as defined in Appendix VII of Part 261) that caused the Administrator to list the waste, does not meet the criterion of § 261.11(a)(3) when considering the factors used by the Administrator in § 261.11(a)(3) (i) through (xi) under which the waste was listed as hazardous; and

(2) Based on a complete application, the Administrator must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in § 261.21, § 261.22, § 261.23, and § 261.24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(e) If the waste is listed with the code "H" in Subpart D,

(1) The petitioner must demonstrate that the waste does not meet the criterion of § 261.11(a)(2); and

(2) Based on a complete application, the Administrator must determine, where he has a reasonable basis to believe that additional factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in § 261.21, § 261.22, § 261.23, and § 261.24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(f) [Reserved for listing radioactive wastes.]

(g) [Reserved for listed infectious wastes.]

(h) Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition must include, in addition to the information required by § 260.20(b):

(1) The name and address of the laboratory facility performing the sampling or tests of the waste;

(2) The names and qualifications of the persons sampling and testing the waste;

(3) The dates of sampling and testing;

(4) The location of the generating facility;

(5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(7) Pertinent data on and discussion of the factors delineated in the respec-

tive criterion for listing a hazardous waste, where the demonstration is based on the factors in § 261.11(a)(3);

(8) A description of the methodologies and equipment used to obtain the representative samples;

(9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(10) A description of the tests performed (including results);

(11) The names and model numbers of the instruments used in performing the tests; and

(12) The following statement signed by the generator of the waste or his authorized representative:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(j) After receiving a petition for an exclusion, the Administrator may request any additional information which he may reasonably require to evaluate the petition.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

(l) The Administrator may exclude only part of the waste for which the demonstration is submitted where he has reason to believe that variability of the waste justifies a partial exclusion.

[45 FR 33073, May 19, 1980, as amended at 50 FR 28742, July 15, 1985; 54 FR 27116, June 27, 1989]

EDITORIAL NOTE: For information on the availability of a guidance manual for petitions to delist hazardous wastes, see 50 FR 21607, May 28, 1985.

§ 260.30 Variances from classification as a solid waste.

In accordance with the standards and criteria in § 260.31 and the procedures in § 260.33, the Regional Administrator may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in § 261.1(c)(8) of this chapter);

(b) Materials that are reclaimed and then reused within the original primary production process in which they were generated;

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

[50 FR 661, Jan. 4, 1985; 50 FR 14219, Apr. 11, 1985]

§ 260.31 Standards and criteria for variances from classification as a solid waste.

(a) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Regional Administrator's decision will be based on the following standards and criteria:

(1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling);

(2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

(3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) The extent to which the material is handled to minimize loss;

(5) Other relevant factors.

(b) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original primary production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(2) The prevalence of the practice on an industry-wide basis;

(3) The extent to which the material is handled before reclamation to minimize loss;

(4) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(5) The location of the reclamation operation in relation to the production process;

(6) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(7) Whether the person who generates the material also reclaims it;

(8) Other relevant factors.

(c) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(1) The degree of processing the material has undergone and the degree of further processing that is required;

(2) The value of the material after it has been reclaimed;

(3) The degree to which the reclaimed material is like an analogous raw material;

(4) The extent to which an end market for the reclaimed material is guaranteed;

(5) The extent to which the reclaimed material is handled to minimize loss;

(6) Other relevant factors.

[50 FR 662, Jan. 4, 1985]

§ 260.32 Variance to be classified as a boiler.

In accordance with the standards and criteria in § 260.10 (definition of "boiler"), and the procedures in § 260.33, the Regional Administrator may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in § 260.10, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

[50 FR 662, Jan. 4, 1985]

§ 260.33 Procedures for variances from classification as a solid waste or to be classified as a boiler.

The Regional Administrator will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed flame combustion devices as boilers:

(a) The applicant must apply to the Regional Administrator in the region where the recycler is located. The application must address the relevant criteria contained in § 260.31 or § 260.32 of this part.

(b) The Regional Administrator will evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the locality where the recycler is located. The Regional Administrator will accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at his discretion. The Regional Administrator will issue a final decision after receipt of comments and after the hearing (if any), and this decision may not be appealed to the Administrator.

[50 FR 662, Jan. 4, 1985]

§ 260.40 Additional regulation of certain hazardous waste recycling activities on a case-by-case basis.

(a) The Regional Administrator may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in § 261.6(a)(2)(iv) of this chapter should be regulated under § 261.6 (b) and (c) of this chapter. The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Regional Administrator will consider the following factors:

(1) The types of materials accumulated or stored and the amounts accumulated or stored;

(2) The method of accumulation or storage;

(3) The length of time the materials have been accumulated or stored before being reclaimed;

(4) Whether any contaminants are being released into the environment, or are likely to be so released; and

(5) Other relevant factors.

The procedures for this decision are set forth in § 260.41 of this chapter.

[50 FR 662, Jan. 4, 1985]

§ 260.41 Procedures for case-by-case regulation of hazardous waste recycling activities.

The Regional Administrator will use the following procedures when determining whether to regulate hazardous waste recycling activities described in § 261.6(a)(2)(iv) under the provisions of § 261.6 (b) and (c), rather than under the provisions of Subpart F of Part 266 of this chapter.

(a) If a generator is accumulating the waste, the Regional Administrator will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of Subparts A, C, D, and E of Part 262 of this chapter. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the Regional Administrator will hold a public hearing. The Regional Administrator will provide notice of the hearing to the public and allow public participation at the hearing. The Regional Administrator will issue a final order after the hearing stating whether or not compliance with Part 262 is required. The order becomes effective 30 days after service of the decision unless the Regional Administrator specifies a later date or unless review by the Administrator is requested. The order may be appealed to the Administrator by any person who participated in the public hearing. The Administrator may choose to grant or to deny the appeal. Final Agency action occurs when a final order is issued and Agency review procedures are exhausted.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of Parts 270 and 124 of this chapter. The owner or operator of the facility must apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Regional Administrator's decision, he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the Agency's determination. The question of whether the Regional Administrator's decision was proper will remain open for consideration during the public comment period discussed under § 124.11 of this chapter and in any subsequent hearing.

[50 FR 663, Jan. 4, 1985]

APPENDIX I—OVERVIEW OF SUBTITLE C REGULATIONS

The Agency believes that there are many people who suspect, but are not sure, that their activities are subject to control under the RCRA Subtitle C rules. This appendix is written for these people. It is designed to help those who are unfamiliar with the hazardous waste control program to determine with which, if any, of the regulations they should comply.

Definition of Solid Waste

The first question which such a person should ask himself is: "Is the material I handle a solid waste?" If the answer to this question is "No", then the material is not subject to control under RCRA and, therefore, the person need not worry about whether he should comply with the Subtitle C rules.

Section 261.2 of this chapter provides a definition of "solid waste" which expands the statutory definition of that term given in section 1004(27) of RCRA. This definition is diagrammed in Figure 1 below.

Figure 1 explains that all materials are either: (1) Garbage refuse, or sludge; (2) solid, liquid, semi-solid or contained gaseous material; or (3) something else. No materials in the third category are solid waste. All materials in the first category are solid waste. Materials in the second category are solid waste unless they are one of the five exclusions specified in § 261.4(a).

Definition of Hazardous Waste

If a person has determined that his material is a "solid waste", the next question he should ask is: "Is the solid waste I handle a hazardous waste?"

Hazardous waste is defined in § 261.3 of this chapter. Section 261.3 provides that, in general, a solid waste is a hazardous waste if: (1) It is, or contains, a hazardous waste listed in Subpart D of Part 261 of this chapter, or (2) the waste exhibits any of the characteristics defined in Subpart C of Part 261. However, Parts 260 and 261 also contain provisions which exclude (§§ 261.4(b), 260.20, and 260.22) certain solid wastes from the definition of "hazardous waste", even though they are listed in Subpart D or exhibit one or more of the characteristics defined in Subpart C. Figure 2 depicts the interplay of these special provisions with the definition of "hazardous waste". It presents a series of questions which a person should ask himself concerning his waste. After doing so, the person should be able to determine if the solid waste he handles is a hazardous waste.

Hazardous Waste Regulations

If this is the case, the person should look at Figure 3. Figure 3 depicts the special provisions specified in the final Part 261 rules for hazardous waste which:

1. Is generated by a small quantity generator
2. Is or is intended to be legitimately and beneficially used, re-used, recycled, or reclaimed
3. Is a sludge; is listed in Part 261, Subpart D; or is a mixture containing a waste listed in Part 261, Subpart D.

For each of these Groups, Figure 3 indicates with which Subtitle C regulations (if any) the person handling these wastes must comply. Figure 3 also explains that, if a person handles hazardous waste which is not included in any one of the above three categories, his waste is subject to the Subtitle C regulations diagrammed in Figure 4.

Figure 4 is a flowchart which identifies the three categories of activities regulated under the Subtitle C rules, and the corresponding set of rules with which people in each of these categories must comply. It points out that all people who handle hazardous waste are either: (1) Generators of hazardous waste, (2) transporters of hazardous waste, (3) owners or operators of hazardous waste treatment, storage, or disposal facilities, or (4) a combination of the above. Figure 4 indicates that all of these people must notify EPA of their hazardous waste activities in accordance with the Section 3010 Notification Procedures (see 45 FR 12746 *et seq.*), and obtain an EPA identification number.

It should be noted that people handling wastes listed in Subpart D of Part 261 who have filed, or who intend to file an application to exempt their waste from regulation under the Subtitle C rules, must also comply with the notification requirements of section 3010.

If a person generates hazardous waste, Figure 4 indicates that he must comply with the Part 262 rules. If he transports it, he must comply with the Part 263 rules. The standards in both these Parts are designed to ensure, among other things, proper recordkeeping and reporting, the use of a manifest system to track shipments of hazardous waste, the use of proper labels and containers, and the delivery of the waste to a permitted treatment, storage, or disposal facility.

If a person owns or operates a facility which treats, stores, or disposes of hazardous waste, the standards with which he must comply depend on a number of factors. First of all, if the owner or operator of a *storage* facility is also the person who generates the waste, and the waste is stored at the facility for less than 90 days for subsequent shipment off-site, then the person must comply with § 262.34 of the Part 262 rules.

All other owners or operators of treatment, storage, or disposal facilities must comply with either the Part 264 or the Part 265 rules. To determine with which of these sets of rules an owner or operator must comply, he must find out whether his facility qualifies for interim status. To qualify, the owner or operator must: (1) Have been treating, storing, or disposing of the hazardous waste, or commenced facility construction on or before October 21, 1976, (2) comply with the section 3010 notification requirements, and (3) apply for a permit under Part 270 of this chapter.

If the owner or operator has done all of the above, he qualifies for interim status, and he must comply with the Part 265 rules. These rules contain administrative requirements, monitoring and closure standards, and an abbreviated set of technical and closure and post-closure cost estimate requirements. The owner or operator must comply with these standards until final administrative disposition of his permit application is made. If a permit is issued to the owner or operator, he must then comply with the permit which will be based on the Part 264 rules.

If the owner or operator has not carried out the above three requirements, he does not qualify for interim status. Until he is issued a permit for his facility, the owner or operator must stop waste management operations (if any) at the facility, and send his hazardous waste (if any) to a facility whose owner or operator has interim status or to a storage facility following the Part 262 rules.

In order to apply for a permit, the owner or operator must comply with the procedures specified in Part 270 of this chapter.

It should be noted that the Agency will be periodically revising the rules depicted in Figures 3 and 4. All persons are encouraged to write to EPA to verify that the regulations which they are reading are up-to-date. To obtain this verification, contact: Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair Street, Cincinnati, Ohio 45268 (513) 684-5362.

FIGURE 1

DEFINITION OF A SOLID WASTE

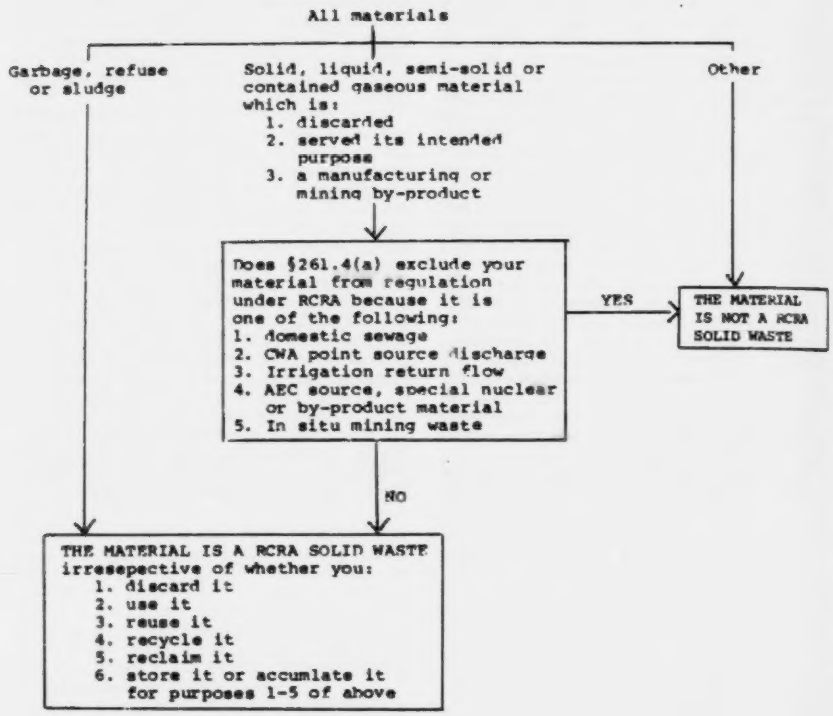

All materials
Garbage, refuse or sludge
Solid, liquid, semi-solid or contained gaseous material which is:
1. discarded
2. served its intended purpose
3. a manufacturing or mining by-product
Other
Does §261.4(a) exclude your material from regulation under RCRA because it is one of the following:
1. domestic sewage
2. CWA point source discharge
3. Irrigation return flow
4. AEC source, special nuclear or by-product material
5. In situ mining waste
YES
THE MATERIAL IS NOT A RCRA SOLID WASTE
NO
THE MATERIAL IS A RCRA SOLID WASTE irresepective of whether you:
1. discard it
2. use it
3. reuse it
4. recycle it
5. reclaim it
6. store it or accumlate it for purposes 1-5 of above

FIGURE 2

DEFINITION OF A HAZARDOUS WASTE

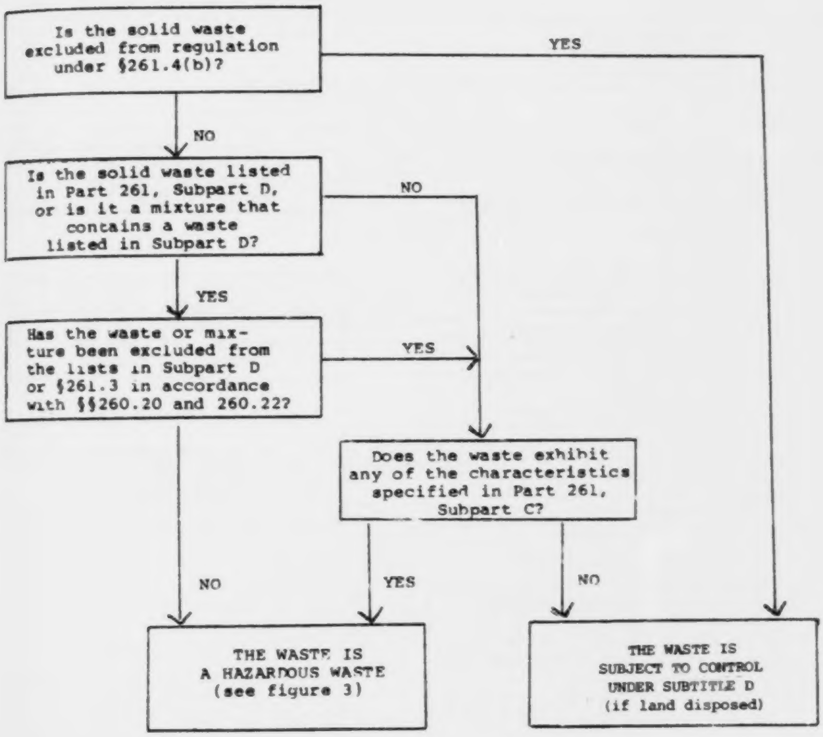

Is the solid waste excluded from regulation under §261.4(b)?
YES
NO
Is the solid waste listed in Part 261, Subpart D, or is it a mixture that contains a waste listed in Subpart D?
NO
YES
Has the waste or mixture been excluded from the lists in Subpart D or §261.3 in accordance with §§260.20 and 260.22?
YES
Does the waste exhibit any of the characteristics specified in Part 261, Subpart C?
NO
YES
NO
THE WASTE IS A HAZARDOUS WASTE (see figure 3)
THE WASTE IS SUBJECT TO CONTROL UNDER SUBTITLE D (if land disposed)

FIGURE 3

SPECIAL PROVISIONS FOR CERTAIN HAZARDOUS WASTE

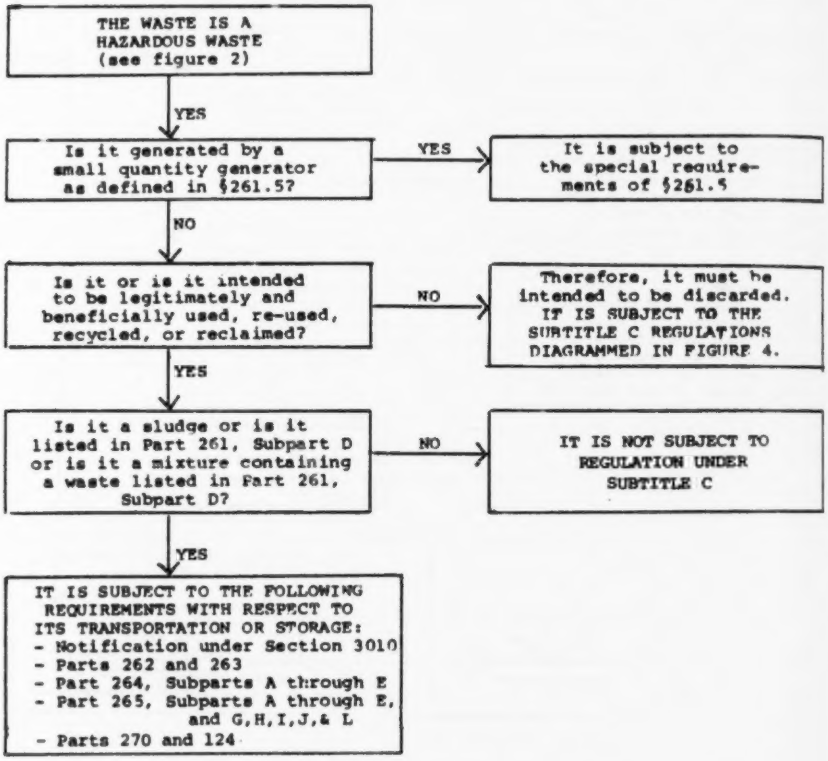
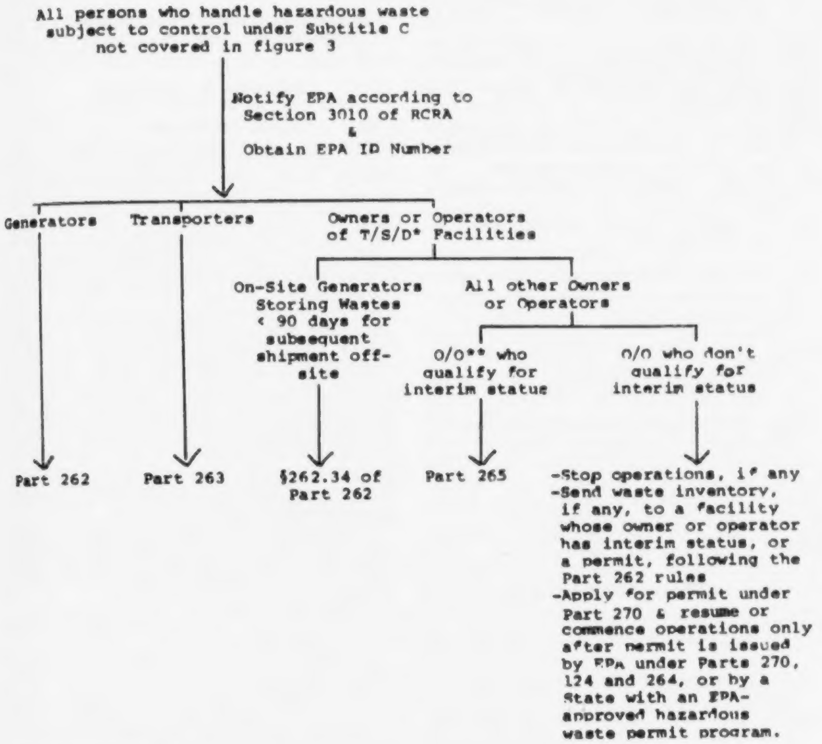

THE WASTE IS A HAZARDOUS WASTE (see figure 2)
YES
Is it generated by a small quantity generator as defined in §261.5?
YES
It is subject to the special requirements of §261.5
NO
Is it or is it intended to be legitimately and beneficially used, re-used, recycled, or reclaimed?
NO
Therefore, it must be intended to be discarded. IT IS SUBJECT TO THE SUBTITLE C REGULATIONS DIAGRAMMED IN FIGURE 4.
YES
Is it a sludge or is it listed in Part 261, Subpart D or is it a mixture containing a waste listed in Part 261, Subpart D?
NO
IT IS NOT SUBJECT TO REGULATION UNDER SUBTITLE C
YES
IT IS SUBJECT TO THE FOLLOWING REQUIREMENTS WITH RESPECT TO ITS TRANSPORTATION OR STORAGE:
- Notification under Section 3010
- Parts 262 and 263
- Part 264, Subparts A through E
- Part 265, Subparts A through E, and G,H,I,J,& L
- Parts 270 and 124

FIGURE 4

REGULATIONS FOR HAZARDOUS WASTE
NOT COVERED IN DIAGRAM 3


All persons who handle hazardous waste subject to control under Subtitle C not covered in figure 3
Notify EPA according to Section 3010 of RCRA & Obtain EPA ID Number
Generators
Transporters
Owners or Operators of T/S/D* Facilities
On-Site Generators Storing Wastes < 90 days for subsequent shipment off-site
All other Owners or Operators
O/O** who qualify for interim status
O/O who don't qualify for interim status
Part 262
Part 263
§262.34 of Part 262
Part 265
-Stop operations, if any
-Send waste inventory, if any, to a facility whose owner or operator has interim status, or a permit, following the Part 262 rules
-Apply for permit under Part 270 & resume or commence operations only after permit is issued by EPA under Parts 270, 124 and 264, or by a State with an EPA-approved hazardous waste permit program.

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* T/S/D stands for Treatment, Storage, or Disposal

** O/O stands for Owners or Operators

[45 FR 33073, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983]

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A—General

Sec.
261.1 Purpose and scope.
261.2 Definition of solid waste.
261.3 Definition of hazardous waste.
261.4 Exclusions.
261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.
261.6 Requirements for recyclable materials.
261.7 Residues of hazardous waste in empty containers.

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Wastes

261.10 Criteria for identifying the characteristics of hazardous waste.
261.11 Criteria for listing hazardous waste.

Subpart C—Characteristics of Hazardous Waste

261.20 General.
261.21 Characteristic of ignitability.
261.22 Characteristic of corrosivity.
261.23 Characteristic of reactivity.
261.24 Characteristic of EP toxicity.

Subpart D—Lists of Hazardous Wastes

261.30 General.
261.31 Hazardous wastes from non-specific sources.
261.32 Hazardous wastes from specific sources.
261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

APPENDICES

APPENDIX I—REPRESENTATIVE SAMPLING METHODS
APPENDIX II—EP TOXICITY TEST PROCEDURES
APPENDIX III—CHEMICAL ANALYSIS TEST METHODS
APPENDIX IV—[RESERVED FOR RADIOACTIVE WASTE TEST METHODS]
APPENDIX V—[RESERVED FOR INFECTIOUS WASTE TREATMENT SPECIFICATIONS]
APPENDIX VI—[RESERVED FOR ETIOLOGIC AGENTS]
APPENDIX VII—BASIS FOR LISTING HAZARDOUS WASTE
APPENDIX VIII—HAZARDOUS CONSTITUENTS
APPENDIX IX—WASTES EXCLUDED UNDER §§ 260.20 AND 260.22
APPENDIX X—METHOD OF ANALYSIS FOR CHORINATED DIBENZO-P-DIOXINS AND -DIBENZOFURANS

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

SOURCE: 45 FR 33119, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 261.1 Purpose and scope.

(a) This part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265, 268, and Parts 270, 271, and 124 of this chapter and which are subject to the notification requirements of section 3010 of RCRA. In this part:

(1) Subpart A defines the terms "solid waste" and "hazardous waste", identifies those wastes which are excluded from regulation under Parts 262 through 266, 268 and 270 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.

(2) Subpart B sets forth the criteria used by EPA to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Subpart C identifies characteristics of hazardous waste.

(4) Subpart D lists particular hazardous wastes.

(b)(1) The definition of solid waste contained in this part applies only to wastes that also are hazardous for purposes of the regulations implementing Subtitle C of RCRA. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(2) This part identifies only some of the materials which are solid wastes and hazardous wastes under sections 3007, 3013, and 7003 of RCRA. A material which is not defined as a solid waste in this part, or is not a hazardous waste identified or listed in this part, is still a solid waste and a hazardous waste for purposes of these sections if:

(i) In the case of sections 3007 and 3013, EPA has reason to believe that the material may be a solid waste within the meaning of section 1004(27) of RCRA and a hazardous waste within the meaning of section 1004(5) of RCRA; or

(ii) In the case of section 7003, the statutory elements are established.

(c) For the purposes of §§ 261.2 and 261.6:

(1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) "Sludge" has the same meaning used in § 260.10 of this chapter;

(3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (*e.g.,*) bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (*e.g.,* radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (*e.g.,* slags from a single smelting process) that is recycled in the same way (*i.e.,* from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986]

§ 261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by § 261.4(a) or that is not excluded by variance granted under §§ 260.30 and 260.31.

(2) A *discarded material* is any material which is:

(i) *Abandoned,* as explained in paragraph (b) of this section; or

(ii) *Recycled,* as explained in paragraph (c) of this section; or

(iii) Considered *inherently waste-like,* as explained in paragraph (d) of this section.

(b) Materials are solid waste if they are *abandoned* by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) *Used in a manner constituting disposal.* (i) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) *Burning for energy recovery.* (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed.* Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(4) *Accumulated speculatively.* Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1)) (1)	Energy recovery/fuel (§ 261.2(c)(2)) (2)	Reclamation (§ 261.2(c)(3)) (3)	Speculative accumulation (§ 261.2(c)(4)) (4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)		(*)
By-products (listed in 40 CFR Part 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)		(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)		
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials", "sludges", "by-products," and "scrap metal" are defined in § 261.1.

(d) *Inherently waste-like materials.* The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) The Administrator will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in Appendix VIII of Part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) *Materials that are not solid waste when recycled.* (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraph (d)(1) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 664, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985]

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(ii) It is listed in Subpart D and has not been excluded from the lists in Subpart D under §§ 260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under §§ 260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes (except by application of paragraph (a)(2) (i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and:

(A) One or more of the following spent solvents listed in § 261.31—carbon tetrachloride, tetrachloroethylene, trichoroethylene—*Provided,* That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million; or

(B) One or more of the following spent solvents listed in § 261.31—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in § 261.32—heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

(D) A discarded commercial chemical product, or chemical intermediate listed in § 261.33, arising from *de minimis* losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, *"de minimis"* losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D, *Provided, That* the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D, when the waste first meets the listing description set forth in Subpart D.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in Subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

(c) Unless and until it meets the criteria of paragraph (d):

(1) A hazardous waste will remain a hazardous waste.

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

(B) Waste from burning any of the materials exempted from regulation by § 261.6(a)(3) (v) through (ix).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

(2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this chapter.

[45 FR 33119, May 19, 1980, as amended at 46 FR 56588, Nov. 17, 1981; 50 FR 14219, Apr. 11, 1985; 50 FR 49202, Nov. 29, 1985; 52 FR 11821, Apr. 13, 1987]

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this part:

(1)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended.

[*Comment:* This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(6) Pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

(i) Receives and burns only

(A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and

(B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes which fail the test for the characteristic of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the text for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exlcusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in paragraphs (b)(6)(i)(A), (B) and (C) (so long as they do not fail the test for the charactristic of EP toxicity, and do not fail the test for any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/crome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludes generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome-tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation and procesing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore. For the purposes of this paragraph, solid waste from the processing of ores and minerals does not include:

(i) Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production;

(ii) Surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(iii) Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production;

(iv) Spent potliners from primary aluminum reduction;

(v) Emission control dust or sludge from ferrochromiumsilicon production;

(vi) Emission control dust or sludge from ferrochromium production.

(8) Cement kiln dust waste.

(9) Solid waste which consists of discarded wood or wood products which fails the test for the characteristic of EP toxicity and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265, 268, 270, 271 and 124 of this chapter or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d) *Samples.* (1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or Parts 262 through 268 or Part 270 or Part 124 of this chapter or to the notification requirements of section 3010 of RCRA, when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(2) In order to qualify for the exemption in paragraphs (d)(1) (i) and (ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the following information accompanies the sample:

(*1*) The sample collector's name, mailing address, and telephone number;

(*2*) The laboratory's name, mailing address, and telephone number;

(*3*) The quantity of the sample;

(*4*) The date of shipment; and

(*5*) A description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in paragraph (d)(1) of this section.

(e) *Treatability Study Samples.* (1) Except as provided in paragraph (e)(2) of this section, persons who generate or collect samples for the purpose of conducting treatability studies as defined in section 260.10, are not subject to any requirement of Parts 261 through 263 of this chapter or to the notification requirements of Section 3010 of RCRA, nor are such samples included in the quantity determinations of § 261.5 and § 262.34(d) when:

(i) The sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(2) The exemption in paragraph (e)(1) of this section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(i) The generator or sample collector uses (in "treatability studies") no more than 1000 kg of any non-acute hazardous waste, 1 kg of acute hazardous waste, or 250 kg of soils, water, or debris contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) The mass of each sample shipment does not exceed 1000 kg of non-acute hazardous waste, 1 kg of acute hazardous waste, or 250 kg of soils, water, or debris contaminated with acute hazardous waste; and

(iii) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of paragraph A or B of this subparagraph are met.

(A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

(*1*) The name, mailing address, and telephone number of the originator of the sample;

(*2*) The name, address, and telephone number of the facility that will perform the treatability study;

(*3*) The quantity of the sample;

(*4*) The date of shipment; and

(*5*) A description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility which is exempt under § 261.4(f) or has an appropriate RCRA permit or interim status.

(v) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:

(A) Copies of the shipping documents;

(B) A copy of the contract with the facility conducting the treatability study;

(C) Documentation showing:

(*1*) The amount of waste shipped under this exemption;

(*2*) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;

(*3*) The date the shipment was made; and

(*4*) Whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under paragraph (e)(v)(C) of this section in its biennial report.

(3) The Regional Administrator, or State Director (if located in an authorized State), may grant requests, on a case-by-case basis, for quantity limits in excess of those specified in paragraph (e)(2)(i) of this section, for up to an additional 500 kg of non-acute hazardous waste, 1 kg of acute hazardous waste, and 250 kg of soils, water, or debris contaminated with acute hazardous waste, to conduct further treatability study evaluation when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment. The additional quantities allowed are subject to all the provisions in paragraphs (e)(1) and (e)(2)(ii)(vi) of this section. The generator or sample collector must apply to the Regional Administrator in the Region where the sample is collected and provide in writing the following information:

(i) The reason why the generator or sample collector requires additional quantity of sample for the treatability study evaluation and the additional quantity needed;

(ii) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the data each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

(iii) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(iv) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(v) Such other information that the Regional Administrator considers necessary.

(f) *Samples Undergoing Treatability Studies at Laboratories and Testing Facilities.* Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, Part 124, Parts 262–266, 268, and 270, or to the notification requirements of Section 3010 of RCRA provided that the conditions of paragraphs (f) (1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to paragraphs (f) (1) through (11) of this section. Where a group of MTUs are located at the same site, the limitations specified in (f) (1) through (11) of this section apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the Regional Administrator, or State Director (if located in an authorized State), in writing that it intends to conduct treatability studies under this paragraph.

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 250 kg of "as received" hazardous waste is subjected to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 1000 kg, the total of which can include 500 kg of soils, water, or debris contaminated with acute hazardous waste or 1 kg of acute hazardous waste. This quantity limitation does not include:

(i) Treatability study residues; and

(ii) Treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) The date the shipment was received;

(iii) The quantity of waste accepted;

(iv) The quantity of "as received" waste in storage each day;

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) The date the treatability study was concluded;

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the Regional Administrator, or State Director (if located in an authorized State), by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(i) The name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) The types (by process) of treatability studies conducted;

(iii) The names and addresses of persons for whom studies have been conducted (including their EPA identification numbers);

(iv) The total quantity of waste in storage each day;

(v) The quantity and types of waste subjected to treatability studies;

(vi) When each treatability study was conducted;

(vii) The final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under § 261.3 and, if so, are subject to Parts 261 through 268, and Part 270 of this Chapter, unless the residues and unused samples are returned to the sample originator under the § 261.4(e) exemption.

(11) The facility notifies the Regional Administrator, or State Director (if located in an authorized State), by letter when the facility is no longer planning to conduct any treatability studies at the site.

(Approved by the Office of Management and Budget under control number 2050-0088)

[45 FR 33119, May 19, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.4, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

(a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e), (f), (g), and (j) of this section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 266, 268, and Parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA, provided the generator complies with the requirements of paragraphs (f), (g), and (j) of this section.

(c) Hazardous waste that is not subject to regulation or that is subject only to § 262.11, § 262.12, § 262.40(c), and § 262.41 is not included in the quantity determinations of this part and Parts 262 through 266, 268, and 270 and is not subject to any of the requirements of those parts. Hazardous waste that is subject to the requirements of § 261.6 (b) and (c) and Subparts C, D, and F of Part 266 is included in the quantity determination of this part and is subject to the requirements of Parts 262 through 266 and 270.

(d) In determining the quantity of hazardous waste generated, a generator need not include:

(1) Hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by onsite treatment (including reclamation) of his hazardous waste, so long as the hazardous waste that is treated was counted once; or

(3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under Parts 262 through 266, 268, and Parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA:

(1) A total of one kilogram of acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).

[Comment: "Full regulation" means those regulations applicable to generators of greater than 1,000 kg of non-acutely hazardous waste in a calendar month.]

(f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in paragraph (e)(1) or (2) of this section to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) Section 262.11 of this chapter;

(2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous wastes in quantities greater than those set forth in paragraph (e)(1) or (e)(2) of this section, all of those accumulated wastes are subject to regulation under Parts 262 through 266, 268, and Parts 270 and 124 of this chapter, and the applicable notification requirements of section 3010 of RCRA. The time period of § 262.34(a) of this chapter, for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit;

(3) A conditionally exempt small quantity generator may either treat or dispose of his acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under Part 270 of this chapter;

(ii) In interim status under Parts 270 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 271 of this chapter;

(iv) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste; or

(v) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation.

(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) Section 262.11 of this chapter;

(2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous wastes, all of those accumulated wastes are subject to regulation under the special provisions of Part 262 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of Parts 263 through 266, 268, and Parts 270 and 124 of this chapter, and the applicable notification requirements of section 3010 of RCRA. The time period of § 262.34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1000 kilograms;

(3) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under Part 270 of this chapter;

(ii) In interim status under Parts 270 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 271 of this chapter;

(iv) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste; or

(v) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in Subpart C.

(i) If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.

(j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to Subpart E of Part 266 of this chapter if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated if it is destined to be burned for energy recovery.

[51 FR 10174, Mar. 24, 1986, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 53 FR 27163, July 19, 1988]

§ 261.6 Requirements for recyclable materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under Subparts C through G of Part 266 of this chapter and all applicable provisions in Parts 270 and 124 of this chapter:

(i) Recyclable materials used in a manner constituting disposal (Subpart C);

(ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of Part 264 or 265 of this chapter (Subpart D);

(iii) Used oil that exhibits one or more of the characteristics of hazardous waste and is burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of Part 264 or 265 of this chapter (Subpart E);

(iv) Recyclable materials from which precious metals are reclaimed (Subpart F);

(v) Spent lead-acid batteries that are being reclaimed (Subpart G).

(3) The following recyclable materials are not subject to regulation under Parts 262 through Parts 266 or Parts 268, 270 or 124 of this chapter, and are not subject to the notification requirements of section 3010 of RCRA:

(i) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in § 262.58:

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in §§ 262.53, 262.56 (a)(1)-(4), (6), and (b), and 262.57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in Subpart E of Part 262, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(ii) Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;

(iii) Used oil that exhibits one or more of the characteristics of hazardous waste but is recycled in some other manner than being burned for energy recovery;

(iv) Scrap metal;

(v) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices;

(vi) Oil reclaimed from hazardous waste resulting from normal petroleum refining, production, and transportation practices, which oil is to be refined along with normal process streams at a petroleum refining facility;

(vii) Coke and coal tar from the iron and steel industry that contains EPA Hazardous Waste No. K087 (Decanter tank tar sludge from coking operations) from the iron and steel production process;

(viii)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under § 266.40(e) of this chapter and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under § 266.40(e) of this chapter; and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under § 266.40(e) of this chapter; and

(ix) Petroleum coke produced from petroleum refinery hazardous wastes containing oil at the same facility at which such wastes were generated, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in Part 261, Subpart C.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Parts 262 and 263 of this chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section.

(c)(1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of Subparts A through L of Parts 264 and 265, and under Parts 124, 266, 268, and 270 of this Chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation.)

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

(i) Notification requirements under section 3010 of RCRA;

(ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of this chapter.

[50 FR 49203, Nov. 29, 1985, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 52 FR 11821, Apr. 13, 1987]

§ 261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under Parts 261 through 265, or Part 268, 270 or 124 of this chapter or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under Parts 261 through 265, and Parts 268, 270 and 124 of this chapter and to the notification requirements of section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in §§ 261.31, 261.32, or 261.33(e) of this chapter is empty if:

(i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, *e.g.*, pouring, pumping, and aspirating, *and*

(ii) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, *or*

(iii)(A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in §§ 261.31, 261.32, or 261.33(e) is empty if:

(i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

[45 FR 78529, Nov. 25, 1980, as amended at 47 FR 36097, Aug. 18, 1982; 48 FR 14294, Apr. 1, 1983; 50 FR 1999, Jan. 14, 1985; 51 FR 40637, Nov. 7, 1986]

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

§ 261.10 Criteria for identifying the characteristics of hazardous waste.

(a) The Administrator shall identify and define a characteristic of hazardous waste in Subpart C only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

§ 261.11 Criteria for listing hazardous waste.

(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Administrator concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into nonharmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § 261.5(c).

Subpart C—Characteristics of Hazardous Waste

§ 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subpart.

[*Comment*: § 262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subpart]

(b) A hazardous waste which is identified by a characteristic in this subpart, but is not listed as a hazardous waste in Subpart D, is assigned the EPA Hazardous Waste Number set forth in the respective characteristic in this subpart. This number must be used in complying with the notification requirements of section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265, 268, and Part 270 of this chapter.

(c) For purposes of this subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this chapter.

[*Comment*: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 51 FR 40636, Nov. 7, 1986]

§ 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see § 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§ 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

§ 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21. The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11) or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.

(b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

§ 261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53

or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D003.

§ 261.24 Characteristic of EP toxicity.

(a) A solid waste exhibits the characteristic of EP toxicity if, using the test methods described in Appendix II or equivalent methods approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21, the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section.

(b) A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

TABLE I—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano-naphthalene.	0.02
D013	Lindane (1,2,3,4,5,6-hexa- chlorocyclohexane, gamma isomer.	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis [p-methoxyphenyl]ethane).	10.0
D015	Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67–69 percent chlorine).	0.5
D016	2,4-D, (2,4-Dichlorophenoxyacetic acid).	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid).	1.0

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
EP Toxic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265, 268, and Part 270 of this chapter.

(d) The following hazardous wastes listed in § 261.31 or § 261.32 are subject to the exclusion limits for acutely hazardous wastes established in § 261.5: EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986]

§ 261.31 Hazardous wastes from non-specific sources.

The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)*
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. [This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.32.].	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing dous not include formulations containing Hexachlorophene sythesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)

*(I,T) should be used to specify mixtures containing ignitable and toxic constituents.

[46 FR 4617, Jan. 16, 1981]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.31, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.32 Hazardous wastes from specific sources.

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methy ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry	(T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromiumsilicon production	(T)
K091	Emission control dust or sludge from ferrochromium production	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation: K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)

[46 FR 4618, Jan. 16, 1981]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.32, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless the container is empty as defined in § 261.7(b)(3) of the chapter.

[*Comment:* Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

[*Comment:* The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either § 261.31 or § 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this part.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in § 261.5(e).

[*Comment:* For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P004	309-00-2	Aldrin

Hazardous waste No.	Chemical abstracts No.	Substance
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P001	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P030	....	Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	[1]72-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	[1]534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton

Hazardous waste No.	Chemical abstracts No.	Substance
P049	541-53-7	Dithiobiuret
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cynaide $Ni(CN)_2$
P075	[1] 54-11-5	Nicotine, & salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	[1] 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine

Hazardous waste No.	Chemical abstracts No.	Substance
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	[1] 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P107	1314-96-1	Strontium sulfide SrS
P108	[1] 57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1] 57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1] 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)

[1] CAS Number given for parent compound only.

(f) The commercial chemical products, manfacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in § 261.5 (a) and (g).

[*Comment:* For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	[1] 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-

Hazardous waste No.	Chemical abstracts No.	Substance
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	[1] 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	[1] 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	[1] 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol

Hazardous waste No.	Chemical abstracts No.	Substance
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	[1] 94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N′-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine

Hazardous waste No.	Chemical abstracts No.	Substance
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1′-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U025	111-44-4	Ethane, 1,1′-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N′-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione

Hazardous waste No.	Chemical abstracts No.	Substance
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)

Hazardous waste No.	Chemical abstracts No.	Substance
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile

Hazardous waste No.	Chemical abstracts No.	Substance
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	[1] 81-07-2	Saccharin, & salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride Tlcl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	[1] 81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less

Hazardous waste No.	Chemical abstracts No.	Substance
U239	1330–20–7	Xylene (I)
U200	50–55–5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314–84–7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

[1] CAS Number given for parent compound only.

(Approved by the Office of Management and Budget under control number 2050-0047)

[45 FR 78529, 78541, Nov. 25, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.33, see the List of CFR Sections Affected in the Finding Aids section of this volume.

APPENDIX I—REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65

Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," [a] U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs.—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods." [a]

This manual also contains additional information on application of these protocols.

APPENDIX II—EP TOXICITY TEST PROCEDURES

A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size 100 grams) shall be obtained using the methods specified in Appendix I or any other method capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).]

2. The sample shall be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue [b] obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator shall treat the liquid phase as the extract and proceed immediately to Step 8.

3. The solid material obtained from the Separation Procedure shall be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm² or passes through a 9.5 mm (0.375 inch) standard sieve, the operator shall proceed to Step 4. If the surface area is smaller or the particle size larger than specified above, the solid material shall be prepared for extraction by crushing, cutting or grinding the material so that

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[a] These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

[b] The percent solids is determined by drying the filter pad at 80°C until it reaches constant weight and then calculating the percent solids using the following equation:

Percent solids =

$$\frac{(\text{weight of pad} + \text{solid}) - (\text{tare weight of pad})}{\text{initial weight of sample}} \times 100$$

it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.

4. The solid material obtained in Step 3 shall be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continuously brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the operator shall begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution shall be decreased to 5.0 ± 0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution shall be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid shall be added to bring the pH down to 5.0 ± 0.2. However, in no event shall the aggregrate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture shall be agitated for 24 hours and maintained at 20°-40°C (68°-104°F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45-A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjunction with a metering pump and reservoir of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter shall be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution shall be checked and, if necessary, 0.5N acetic acid shall be manually added to the extractor until the pH reaches 5.0 ± 0.2. The pH of the solution shall be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure shall be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH shall be adjusted to 5.0 ± 0.2 and the extraction continued for an additional four hours, during which the pH shall be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water shall be added to the extractor in an amount determined by the following equation:

$V = (20)(W) - 16(W) - A$

V = ml deionized water to be added

W = weight in grams of solid charged to extractor

A = ml of 0.5N acetic acid added during extraction

7. The material in the extractor shall be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 shall be combined. This combined liquid (or the waste itself if it has less than ½ percent solids, as noted in Step 2) is the extract and shall be analyzed for the presence of any of the contaminants specified in Table I of § 261.24 using the Analytical Procedures designated below.

Separation Procedure

Equipment: A filter holder, designed for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm² (75 psi) hydrostatic pressure to the solution being filtered, shall be used. For mixtures containing nonabsorptive solids, where separation can be effected without imposing a 5.3 kg/cm² pressure differential, vacuum filters employing a 0.45 micrometers filter media can be used. (For further guidance on filtration equipment or procedures see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" incorporated by reference, see § 260.11). Procedure:[2]

(i) Following manufacturer's directions, the filter unit shall be assembled with a filter bed consisting of a 0.45 micrometer filter membrane. For difficult or slow to filter mixtures a prefilter bed consisting of the following prefilters in increasing pore size (0.65 micrometer membrane, fine glass fiber prefilter, and coarse glass fiber prefilter) can be used.

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[2] This procedure is intended to result in separation of the "free" liquid portion of the waste from any solid matter having a particle size >0.45 μm. If the sample will not filter, various other separation techniques can be used to aid in the filtration. As described above, pressure filtration is employed to speed up the filtration process. This does not alter the nature of the separation. If liquid does not separate during filtration, the waste can be centrifuged. If separation occurs during centrifugation, the liquid portion (centrifugate) is filtered through the 0.45 μm filter prior to becoming mixed with the liquid portion of the waste obtained from the initial filtration. Any material that will not pass through the filter after centrifugation is considered a solid and is extracted.

(ii) The waste shall be poured into the filtration unit.

(iii) The reservoir shall be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter shall be immediately lowered to 10-15 psig. Filtration shall be continued until liquid flow ceases.

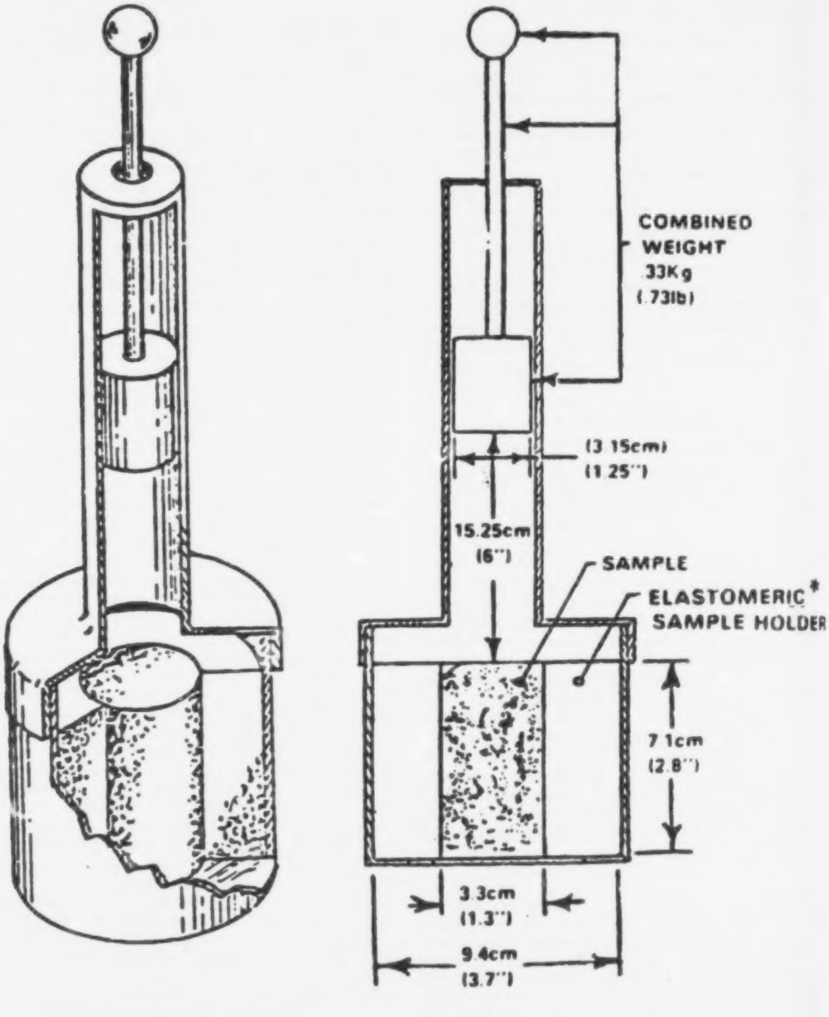
(iv) The pressure shall be increased stepwise in 10 psi increments to 75 psig and filtration continued until flow ceases or the pressurizing gas begins to exit from the filtrate outlet.

(v) The filter unit shall be depressurized, the solid material removed and weighed and then transferred to the extraction apparatus, or, in the case of final filtration prior to analysis, discarded. Do not allow the material retained on the filter pad to dry prior to weighing.

(vi) The liquid phase shall be stored at 4°C for subsequent use in Step 8.

B. Structural Integrity Procedure

Equipment: A Structural Integrity Tester having a 3.18 cm (1.25 in.) diameter hammer weighing 0.33 kg (0.73 lbs.) and having a free fall of 15.24 cm (6 in.) shall be used. This device is available from Associated Design and Manufacturing Company, Alexandria, VA 22314, as Part No. 125, or it may be fabricated to meet the specifications shown in Figure 1.


COMBINED
WEIGHT
.33Kg
(.73lb)
(3.15cm)
(1.25")
15.25cm
(6")
SAMPLE
ELASTOMERIC*
SAMPLE HOLDER
7.1cm
(2.8")
3.3cm
(1.3")
9.4cm
(3.7")

*ELASTOMERIC SAMPLE HOLDER FABRICATED OF MATERIAL FIRM ENOUGH TO SUPPORT THE SAMPLE

Figure 1

COMPACTION TESTER

Procedure

1. The sample holder shall be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion shall be cut from the block having the dimensions of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder. For a fixated waste, samples may be cast in the form of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder for purposes of conducting this test. In such cases, the waste may be allowed to cure for 30 days prior to further testing.

2. The sample holder shall be placed into the Structural Integrity Tester, then the hammer shall be raised to its maximum height and dropped. This shall be repeated fifteen times.

3. The material shall be removed from the sample holder, weighed, and transferred to the extraction apparatus for extraction.

Analytical Procedures for Analyzing Extract Contaminants

The test methods for analyzing the extract are as follows:

1. For arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, toxaphene, 2,4-D[2,4-dichlorophenoxyacetic acid] or 2,4,5-TP [2,4,5-trichlorophenoxypropionic acid]: "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

2. [Reserved]

For all analyses, the methods of standard addition shall be used for quantification of species concentration.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

APPENDIX III—CHEMICAL ANALYSIS TEST METHODS

Tables 1, 2, and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," (incorporated by reference, see § 260.11) which shall be used to determine whether a sample contains a given Appendix VII or VIII toxic constituent.

Table 1 identifies each Appendix VII or VIII organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.

Prior to final sampling and analysis method selection the analyst should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

TABLE 1—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846

Compound	Method Numbers
Acetonitrile	8030, 8240
Acrolein	8030, 8240
Acrylamide	8015, 8240
Acrylonitrile	8030, 8240
2-Amino-l-methylbenzene (*o*-Toluidine)	8250
4-Amino-l-methylbenzene (*p*-Toluidine)	8250
Aniline	8250
Benzene	8020, 8024
Benz(a)anthracene	8100, 8250, 8310
Benzo(a)pyrene	8100, 8250, 8310
Benzotrichloride	8120, 8250
Benzyl chloride	8120, 8250
Benzo(b)fluoanthene	8100, 8250, 8310
Bis(2-chloroethoxymethane)	8010, 8240
Bis(2-chloroethyl)ether	8010, 8240
Bis(2-chloroisopropyl)ether	8010, 8240
Carbon disulfide	8015, 8240
Carbon tetrachloride	8010, 8240
Chlordane	8080, 8250
Chlorinated biphenyls	8080, 8250
Chlorinated dibenzo-*p*-dioxins	8280
Chlorinated dibenzofurans	8280
Chloroacetaldehyde	8010, 8240
Chlorobenzene	8020, 8240
Chloroform	8010, 8240
Chloromethane	8010, 8240
2-Chlorophenol	8040, 8250
Chrysene	8100, 8250, 8310
Creosote [1]	8100, 8250
Cresol(s)	8040, 8250
Cresylic Acid(s)	8040, 8250
Dichlorobenzene(s)	8010, 8120, 8250
Dichloroethane(s)	8010, 8240
Dichloromethane	8010, 8240
Dichlorophenoxyacetic acid	8150, 8250
Dichloropropanol	8120, 8250
2,4-Dimethylphenol	8040, 8250
Dinitrobenzene	8090, 8250
4,6-Dinitro-o-cresol	8040, 8250
2,4-Dinitrotoluene	8090, 8250
2,6-Dinitrotoluene	8060, 8250
Endrin	8080, 8250
2-Ethoxyethanol	8030, 8240
Ethyl ether	8015, 8240
Ethylene dibromide	8010, 8240
Ethylene thiourea	8250, 8330
Formaldehyde	8015, 8240
Formic acid	8250
Heptachlor	8080, 8250
Hexachlorobenzene	8120, 8250
Hexachlorobutadiene	8120, 8250
Hexachloroethane	8010, 8240
Hexachlorocyclopentadiene	8120, 8250
Lindane	8080, 8250
Maleic anhydride	8250
Methanol	8010, 8240
Methomyl	8250
Methyl ethyl ketone	8015, 8240
Methyl isobutyl ketone	8015, 8240
Napthalene	8100, 8250
Napthoquinone	8090, 8250
Nitrobenzene	8090, 8250
4-Nitrophenol	8040, 8240

TABLE 1—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846—Continued

Compound	Method Numbers
2-Nitropropane	8030, 8240
Paraldehyde (trimer of acetaldehyde)	8015, 8240
Pentachlorophenol	8040, 8250
Phenol	8040, 8250
Phorate	8140
Phosphorodithioic acid esters	8140
Phthalic anhydride	8090, 8250
2-Picoline	8090, 8250
Pyridine	8090, 8250
Tetrachlorobenzene(s)	8120, 8250
Tetrachloroethane(s)	8010, 8240
Tetrachloroethene	8010, 8240
Tetrachlorophenol	8040, 8250
Toluene	8020, 8024
Toluene diisocyanate(s)	8250
Toluenediamine	8250
2,4-Toluenediamine	8250
2,6-Toluenediamine	8250
3,4-Toluenediamine	8250
Toxaphene	8080, 8250
Trichloroethane	8010, 8240
Trichloroethene(s)	8010, 8240
Trichlorofluoromethane	8010, 8240
Trichlorophenol(s)	8040, 8250
2,4,5-Trichlorophenoxy propionic acid	8150, 8250
Trichloropropane	8010, 8240
Vinyl chloride	8010, 8240
Vinylidene chloride	8010, 8240
Xylene	8020, 8240

[1] Analyne for phenanthrene and carbazole; if these are present in a ratio between 1.4:1 and 5:1 creosote should be considered present.

TABLE 2—ANALYSIS METHODS FOR INORGANIC CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Antimony	8.50	7040, 7041
Arsenic	8.51	7060, 7061
Barium	8.52	7080, 7081
Cadmium	8.53	7090, 7091
Chromium	8.54	7190, 7191
Chromium: Hexavalent	8.545, 8.546, 8.547	7195, 7196, 7197
Lead	8.56	7420, 7421
Mercury	8.57	7470, 7471
Nickel	8.58	7520, 7521
Selenium	8.59	7740, 7741
Silver	8.60	7760, 7761
Cyanides	8.55	9010
Total Organic Halogen	8.66	9020
Sulfides	8.67	9030

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sampling of Solid Wastes	1.0		1.0	
Development of Appropriate Sampling Plans	1.0		1.1	
Regulatory and Scientific Objectives	1.0-2		1.1.1	
Fundamental Statistical Concepts	1.0-3		1.1.2	
Basic Statistical Strategies	1.0-7		1.1.3	
Simple Random Sampling			1.1.3.1	
Stratified Random Sampling			1.1.3.2	
Systematic Random Sampling			1.1.3.3	
Special Considerations	1.0-7			
Composite Sampling			1.1.4.1	
Subsampling			1.1.4.2	
Cost and Loss Functions			1.1.4.3	
Implementation of Sampling Plan	1.0-7		1.2	
Selection of Sampling Equipment			1.2.1	
Composite Liquid Waste Sampler	3.2.1		1.2.1.1	
Weighted Bottle	3.2.2		1.2.1.2	
Dipper	3.2.3		1.2.1.3	
Thief	3.2.4		1.2.1.4	
Trier	3.2.5		1.2.1.5	
Auger	3.2.6		1.2.1.6	
Scoop and Shovel	3.2.7		1.2.1.7	
Selection of Sample Containers	3.3		1.2.2	
Processing and Storage of Samples	3.3		1.2.3	
Documentation of Chain of Custody	2.0		1.3	
Sample Labels	2.0-1		1.3.1	
Sample Seals	2.0-3		1.3.2	
Field Log Book	2.0-5		1.3.3	
Chain-of-Custody Record	2.0-6		1.3.4	

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846—Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sample Analysis Request Sheet	2.0-9		1.3.5	
Sample Delivery to Laboratory	2.0-10		1.3.6	
Shipping of Samples	2.0-10		1.3.7	
Receipt and Logging of Sample	2.0-12		1.3.8	
Assignment of Sample for Analysis	2.0-13		1.3.9	
Sampling Methodology	3.0		1.4	
Containers	3.2-2		1.4.1	
Tanks	3.2-2		1.4.2	
Waste Piles	3.2-2		1.4.3	
Landfills and Lagoons	3.2-2		1.4.4	
Waste Evaluation Procedures			2.0	
Characteristics of Hazardous Waste			2.1	
Ignitability	4.0		2.1.1	
Pensky-Martens Closed-Cup Method	4.1		2.1.1	1010
Setaflash Closed-Cup Method	4.1		2.1.1	1020
Corrosivity	5.0		2.1.2	
Corrosivity Toward Steel	5.3		2.1.2	1110
Reactivity	6.0		2.1.3	
Extraction Procedure Toxicity	7.0		2.1.4	
Extraction Procedure Toxicity Test	7.1, 7.2, 7.5			
Method and Structural Integrity Test	7.4		2.1.4	1310
Sample Workup Techniques			4.0	
Inorganic Techniques	8.49		4.1	
Acid Digestion for Flame AAS	[1]		4.1	3010
Acid Digestion for Furnace AAS	[1]		4.1	3020
Acid Digestion of Oil, Grease, or Wax	8.49-9		4.1	3030
Dissolution Procedure for Oil, Grease or Wax	8.49-8			
Alkaline Digestion	8.0	8.458	4.1	3060
Organic Techniques	8.0		4.2	
Separatory Funnel Liquid-Liquid Extraction	9.0	9.1	4.2	3510
Continuous Liquid-Liquid Extraction	9.0	9.01	4.2	3520
Acid-Base Cleanup Extraction	8.0	8.84	4.2	3530
Soxhlet Extraction	8.0	8.86	4.2	3540
Sonication Extraction	8.0	8.85	4.2	3550
Sample Introduction Techniques			5.0	
Headspace	8.0	8.82	5.0	5020
Purge-and-Trap	8.0	8.83	5.0	5030
Inorganic Analytical Methods	8.0		7.0	
Antimony, Flame AAS	8.0	8.50	7.0	7470
Antimony, Furnace AAS	8.0	8.50	7.0	7471
Arsenic, Flame AAS	8.0	8.51	7.0	7060
Arsenic, Furnace AAS	8.0	8.51	7.0	7061
Barium, Flame AAS	8.0	8.52	7.0	7080
Barium, Furnace AAS	8.0	8.52	7.0	7081
Cadmium, Flame AAS	8.0	8.53	7.0	7130
Cadmium, Furnace AAS	8.0	8.53	7.0	7131
Chromium, Flame AAS	8.0	8.54	7.0	7090
Chromium, Furnace AAS	8.0	8.54	7.0	7191
Chromium, Hexavalent, Coprecipitation	8.0	8.545	7.0	7195
Chromium, Hexavalent, Colorimetric	8.0	8.546	7.0	7196
Chromium, Hexavalent, Chelation	8.0	8.547	7.0	7197
Lead, Flame AAS	8.0	8.56	7.0	7420
Lead, Furnace AAS	8.0	8.56	7.0	7421
Mercury, Cold Vapor, Liquid	8.0	8.57	7.0	7470
Mercury, Cold Vapor, Solid	8.0	8.57	7.0	7471
Nickel, Flame AAS	8.0	8.58	7.0	7520
Nickel, Furnace AAS	8.0	8.58	7.0	7521
Selenium, Flame AAS	8.0	8.59	7.0	7740
Selenium, Gaseous Hydride AAS	8.0	8.59	7.0	7741
Silver, Flame AAS	8.0	8.60	7.0	7760
Silver, Furnace AAS	8.0	8.60	7.0	7761
Organic Analytical Methods	8.0		8.0	
Gas Chromatographic Methods	8.0		8.1	
Halogenated Volatile Organics	8.0	8.01	8.1	8010
Nonhalogenated Volatile Organics	8.0	8.01	8.1	8015
Aromatic Volatile Organics	8.0	8.02	8.1	8020
Acrolein, Acrylonitrile, Acetonitrile	8.0	8.03	8.1	8030
Phenols	8.0	8.04	8.1	8040

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846—Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Phthalate Esters	8.0	8.06	8.1	8060
Organochlorine Pesticides and PCBs	8.0	8.08	8.1	8080
Nitroaromatics and Cyclic Ketones	8.0	8.09	8.1	8090
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.1	8100
Chlorinated Hydrocarbons	8.0	8.12	8.1	8120
Organophosphorus Pesticides	8.0	8.22	8.1	8140
Chlorinated Herbicides	8.0	8.40	8.1	8150
Gas Chromatographic/Mass Spectroscopy Methods (GC/MS)	8.0		8.2	
GC/MS Volatiles	8.0	8.24	8.2	8240
GC/MS Semi-Volatiles, Packed Column	8.0	8.25	8.2	8250
GC/MS Semi-Volatiles, Capillary	8.0	8.27	8.2	8270
Analysis of Chlorinated Dioxins and Dibenzofurans			8.2	8280
High Performance Liquid Chromatographic Methods (HPLC)	8.0		8.3	
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.3	8310
Miscellaneous Analytical Methods	8.0		9.0	
Cyanide; Total and Amenable to Chlorination	8.0	8.55	9.0	9010
Total Organic Halogen (TOX)	8.0	8.66	9.0	9020
Sulfides	8.0	8.67	9.0	9030
pH Measurement	5.0	5.2	9.0	9040
Quality Control/Quality Assurance	10.0		10.1	
Introduction	10.0		10.1	
Program Design	10.0		10.2	
Sampling	10.0		10.3	
Analysis	10.0		10.4	
Data Handling	10.0		10.5	

[1] See specific metal.

[48 FR 15257, Apr. 8, 1983, as amended at 50 FR 2000, Jan. 14, 1985; 50 FR 42942, Oct. 23, 1985; 51 FR 5330, Feb. 13, 1986; 51 FR 6541, Feb. 25, 1986; 51 FR 37729, Oct. 24, 1986]

APPENDIX IV—[RESERVED FOR RADIOACTIVE WASTE TEST METHODS]

APPENDIX V—[RESERVED FOR INFECTIOUS WASTE TREATMENT SPECIFICATIONS]

APPENDIX VI—[RESERVED FOR ETIOLOGIC AGENTS]

APPENDIX VII—BASIS FOR LISTING HAZARDOUS WASTE

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trichfluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-*p*-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-*p*-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-*p*-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo-*p*-dioxins; tetra and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts

EPA hazardous waste No.	Hazardous constituents for which listed
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-*p*-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-*p*-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta-, and hexachlorodibenzo-*p*-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, napthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K064	Lead, cadmium.
K065	Do.
K066	Do.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexacholroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.

EPA hazardous waste No.	Hazardous constituents for which listed
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
K090	Chromium.
K091	Do.
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, *o*-toluidine, *p*-toluidine, aniline.
K113	2,4-Toluenediamine, *o*-toluidine, *p*-toluidine, aniline.
K114	2,4-Toluenediamine, *o*-toluidine, *p*-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K136	Ethylene dibromide.

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

[46 FR 4619, Jan. 16, 1981, as amended at 46 FR 27477, May 20, 1981; 49 FR 5312, Feb. 10, 1984; 50 FR 2000, Jan. 14, 1985; 50 FR 42942, Oct. 23, 1985; 51 FR 5330, Feb. 13, 1986; 51 FR 6541, Feb. 25, 1986; 51 FR 37729, Oct. 24, 1986; 54 FR 35421, Sept. 13, 1989]

APPENDIX VIII—HAZARDOUS CONSTITUENTS

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminefluarone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime.	116-06-3	P070
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-.	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	P119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same.	7440-36-0	
Antimony compounds, N.O.S.[1]			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester.	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S.[1]			
Arsenic acid	Arsenic acid H_3AsO_4	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As_2O_5	1303-28-2	P011
Arsenic trioxide	Arsenic oxide As_2O_3	1327-53-3	P012

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl.	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barium	Same.	7440-39-3	
Barium compounds, N.O.S.[1]			
Barium cyanide	Same	542-62-1	P013
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U019
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium	Same	7440-41-7	P015
Beryllium compounds, N.O.S.[1]			
Bromoacetone	2-Propanone, 1 bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester.	85-68-7	
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.[1]			
Calcium chromate	Chromic acid H_2CrO_4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-.	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-.	57-74-9	U036
Chlordane (alpha and gamma isomers)			U036
Chlorinated benzenes, N.O.S.[1]			
Chlorinated ethane, N.O.S.[1]			
Chlorinated fluorocarbons, N.O.S.[1]			
Chlorinated naphthalene, N.O.S.[1]			
Chlorinated phenol, N.O.S.[1]			
Chlornaphazin	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.[1]			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester.	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.[1]			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-.	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Creosote	Same		U051
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Cyanides (soluble salts and complexes) N.O.S.[1]			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl.	14901-08-7	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide.	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240
2,4-D, salts, esters			U240
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-.	20830-81-3	U059
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-.	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-.	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-.	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.[1]	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.[1]	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichirol-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxy ethane	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-.	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.[1]	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.[1]	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.[1]	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta, 6aalpha,7beta,7aalpha)-.	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester.	117-81-7	U028
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester.	3288-58-2	U087
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088
O,O-Diethyl O-pyrazinyl phosphoro- thioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.	297-97-2	P040

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Diethylstilbesterol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-.	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester.	55-91-4	P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester.	60-51-5	P044
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
alpha,alpha-Dimethylphenethylamine	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dinitrobenzene, N.O.S.[1]	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020
Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U017
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester.	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$.	541-53-7	P049
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide.	115-29-7	P050
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid.	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha, 6abeta,7beta,7aalpha)-.	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-.	51-43-4	P042
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters.			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	U077
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester.	52-85-7	P097
Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formic acid	Same	64-18-6	U123
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	U126
Halomethanes, N.O.S.[1]			

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-.	76-44-8	P059
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexa- hydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta, 6beta,6aalpha)-.	1024-57-3	
Heptachlor epoxide (alpha, beta, and gamma isomers).			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyl tetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134
Hydrogen sulfide	Hydrogen sulfide H_2S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-.	465-73-6	P060
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-.	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-,7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-1	4143
Lead	Same	7439-92-1	
Lead compounds, N.O.S.[1]			
Lead acetate	Acetic acid, lead(2+) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead(2+) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-.	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148
Malononitrile	Propanedinitrile	109-77-3	U149
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-.	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S.[1]			
Mercury fulminate	Fulminic acid, mercury(2+) salt	628-86-4	P065
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-.	91-80-5	U155
Methomyl	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester.	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-.	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis(2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
2-Methyllactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester.	298-00-0	P071
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.	56-04-2	U164
Mitomycin C	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-.	50-07-7	U010
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	U163
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	U167
beta-Naphthylamine	2-Naphthalenamine	91-59-8	U168
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S.[1]			
Nickel carbonyl	Nickel carbonyl $Ni(CO)_4$, (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide $Ni(CN)_2$	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	U169
Nitrogen dioxide	Nitrogen oxide NO_2	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-.	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide.	126-85-2	
Nitrogen mustard, N-oxide, hydro- chloride salt.			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.[1]		35576-91-1D	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octamethylpyrophosphoramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO_4, (T-4)-	20816-12-0	P087
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester.	56-38-2	P089
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Phosgene	Carbonic dichloride	75–44–5	P095
Phosphine	Same	7803–51–2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester.	298–02–2	P094
Phthalic acid esters, N.O.S.[1]			
Phthalic anhydride	1,3-Isobenzofurandione	85–44–9	U190
2-Picoline	Pyridine, 2-methyl-	109–06–8	U191
Polychlorinated biphenyls, N.O.S.[1]			
Potassium cyanide	Potassium cyanide K(CN)	151–50–8	P098
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506–61–6	P099
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950–58–5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120–71–4	U193
n-Propylamine	1-Propanamine	107–10–8	U194
Propargyl alcohol	2-Propyn-1-ol	107–19–7	P102
Propylene dichloride	Propane, 1,2-dichloro-	78–87–5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75–55–8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-.	51–52–5	
Pyridine	Same	110–86–1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl ester, (3beta,16beta,17alpha,18beta,20alpha)-.	50–55–5	U200
Resorcinol	1,3-Benzenediol	108–46–3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81–07–2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94–59–7	U203
Selenium	Same	7782–49–2	
Selenium compounds, N.O.S.[1]			
Selenium dioxide	Selenious acid	7783–00–8	U204
Selenium sulfide	Selenium sulfide SeS_2	7488–56–4	U205
Selenourea	Same	630–10–4	P103
Silver	Same	7440–22–4	
Silver compounds, N.O.S.[1]			
Silver cyanide	Silver cyanide Ag(CN)	506–64–9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93–72–1	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143–33–9	P106
Streptozotocin	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]-.	18883–66–4	U206
Strontium sulfide[2]	Strontium sulfide SrS	1314–96–1	P107
Strychnine	Strychnidin-10-one	57–24–9	P108
Strychnine salts			P108
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746–01–6	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95–94–3	U207
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S.[1]	Ethane, tetrachloro-, N.O.S.	25322–20–7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630–20–6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79–34–5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127–18–4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58–90–2	See F027
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689–24–5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78–00–2	P110
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107–49–3	P111
Tetranitromethane	Methane, tetranitro-	509–14–8	P112
Thallium	Same	7440–28–0	
Thallium compounds, N.O.S.[1]			
Thallic oxide	Thallium oxide Tl_2O_3	1314–32–5	P113
Thallium(I) acetate	Acetic acid, thallium(1+) salt	563–68–8	U214
Thallium(I) carbonate	Carbonic acid, dithallium(1+) salt	6533–73–9	U215
Thallium(I) chloride	Thallium chloride TlCl	7791–12–0	U216
Thallium(I) nitrate	Nitric acid, thallium(1+) salt	10102–45–1	U217
Thallium selenite	Selenious acid, dithallium(1+) salt	12039–52–0	P114
Thallium(I) sulfate	Sulfuric acid, dithallium(1+) salt	7446–18–6	P115
Thioacetamide	Ethanethioamide	62–55–5	U218
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime.	39196–18–4	P045
Thiomethanol	Methanethiol	74–93–1	U153
Thiophenol	Benzenethiol	108–98–5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79–19–6	P116
Thiourea	Same	62–56–6	U219

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
Thiram	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-	137-26-8	U244
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoromethane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S.[1]		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridinyl)phosphine sulfide	Aziridine, 1,1′,1″-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)]-bis[5-amino-4-hydroxy-, tetrasodium salt.	72-57-1	U236
Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-.	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V_2O_5	1314-62-1	P120
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%.	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%.	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%.			U248
Warfarin salts, when present at concentrations greater than 0.3%.			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%.	1314-84-7	P122
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less.	1314-84-7	U249

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[1] The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

[2] At 53 FR 43884, Oct. 31, 1988, Appendix VIII was amended by removing the listing: "Stontium sulfide * * * Same * * * 1314—96—1.". The amendatory instruction in that document was incorrect and the Environmental Protection Agency will publish a correction document in the FEDERAL REGISTER at a later date.

[53 FR 13388, Apr. 22, 1988, as amended at 53 FR 43881, Oct. 31, 1988]

APPENDIX IX—WASTES EXCLUDED UNDER §§ 260.20 AND 260.22

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description
Arco Building Products.	Sugarcreek, Ohio.	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after August 15, 1986.
Arco Chemical Co.	Miami, FL	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. FO19) generated from the chemical conversion coating of aluminum after April 29, 1986.
BBC Brown Buveri, Inc.	Sanford, FL	Dewatered Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after October 17, 1986.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Bommer Industries Inc.	Landrum, SC	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from their electroplating operations and contained in evaporation ponds #1 and #2 on August 12, 1987.
Capitol Products Corp.	Harrisburg, PA	Dewatered wastewater treatment slugdges (EPA Hazardous Waste No. FO19) generated from the chemical conversion coating of aluminum after September 12, 1986.
Capitol Products Corporation.	Kentland, IN	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after November 17, 1986.
Chamberlian-Featherlite, Inc.	Hot Springs, AR.	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1986.
Cincinnati Metropolitan Sewer District.	Cincinnati, OH	Sluiced bottom ash (approximately 25,000 cubic yards) contained in the South Lagoon, on September 13, 1985 which contains EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005.
Continental Can Co.	Olympia, WA	Dewatered wastewater treatment sludges (DPA Hazardous Waste No. FO19) generated from the chemical conversion coating of aluminum after September 12, 1986.
Dover Corp., Norris Div.	Tulsa, OK	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. FO06) generated from their electroplating operations after April 29, 1986.
Eli Lilly and Company.	Clinton, Indiana.	Incinerator scrubber liquids, entering and contained in their onsite surface impoundment, and solids settling from these liquids originating from the burning of spent solvents (EPA Hazardous Waste Nos. F002, F003, and F005) contained in their onsite surface impoundment and solids retention area on August 18, 1988 and any new incinerator scubber liquids and settled solids generated in the surface impoundment and and disposed of in the retention are after August 12, 1988.
EPA's Mobile Incineration System.	Denney Farm Site; McDowell, MO.	Process wastewater, rotary kiln ash, CHEAF media, and other solids (except spent activated carbon) (EPA Hazardous Waste Nos. F020, F022, F023, F026, F027, and F028) generated during the field demonstration of EPA's Mobile Incinerator at the Denney Farm Site in McDowell, Missouri, after July 25, 1985, so long as: (1) The incinerator is functioning properly; (2) a grab sample is taken from each tank of wastewater generated and the EP leachate values do not exceed 0.03 ppm for mercury, 0.14 ppm for selenium, and 0.68 ppm for chromium; and (3) a grab sample is taken from each drum of soil or ash generated and a core sample is collected from each CHEAF roll generated and the EP leachate values of daily composites do not exceed 0.044 ppm in ash or CHEAF media for mercury or 0.22 ppm in ash or CHEAF media for selenium.
EPA's Mobile Incineration System (MIS).	McDowell, MO	Kiln ash, cyclone ash, separator sludge, and filtered wastewater (except spent activated carbon) (EPA Hazardous Waste No. F027) generated during the treatment of cancelled pesticides containing 2,4,5-T and Silvex and related materials by the EPA's Mobile Incineration System at the Denney Farm Site in McDowell, Missouri after March 11, 1988, so long as: (1) the incinerator is monitored continuously and is in compliance with operating permit conditions. Should the incinerator fail to comply with the permit conditions relevant to the mechanical operation of the incinerator, RCB must test the residues generated during the run when the failure occurred according to the requirements of Conditions (2) through (5), regardless of whether or not the demonstration in Condition (6) has been made; (2) Four grab samples of wastewater must be composited from the volume of filtered wastewater collected after each eight hour run and, prior to disposal, the composite samples analyzed for the EP toxic metals, nickel, and cyanide. If arsenic, chromium, lead, and silver EP leachate test results exceed 0.44 ppm; barium levels exceed 6.8 ppm; cadmium and selenium levels exceed 0.09 ppm; mercury levels exceed 0.02 ppm; nickel levels exceed 4.4 ppm; or cyanide levels exceed 1.8 ppm, the wastewater must be retreated to achieve these levels or must be disposed in accordance with Subtitle C of RCRA. Analyses must be performed according to SW-846 methodologies.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(3) One grab sample must be taken from each drum of kiln ash generated during each eight hour run; all grabs collected during a given eight hour run must then be composited to form one composite sample. One grab sample must be taken from each drum of cyclone ash generated during each eight hour run; all grabs collected during a given eight hour run must then be composited to form one composite sample. A composite sample of four grab samples of the separator sludge must be collected at the end of each eight hour run. Prior to the disposal of the residues from each eight hour run, an EP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide. If arsenic, chromium, lead, and silver EP leachate test results exceed 1.6 ppm; barium levels exceed 32 ppm; cadmium and selenium levels exceed 0.3 ppm; mercury levels exceed 0.07 ppm; nickel levels exceed 16 ppm; or cyanide levels exceed 6.5 ppm, the wastes must be retreated to achieve these levels or must be disposed in accordance with Subtitle C of RCRA. Analyses must be performed according to SW-846 methodologies. (4) RCB must generate, prior to disposal of residues, verification data from each eight hour run for each treatment residue (*i.e.*, kiln ash, cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in conditions (2) and (3). Analyses must be performed according to SW-846 methodologies. Any residues which exceed any of the levels listed below must be retreated or must be disposed as hazardous. Solid and sludge concentrations must not exceed the following levels: Aldrin—0.015 ppm Benzene—9.7 ppm Benzo(a)pyrene—0.43 ppm Benzo(b)fluoranthene—1.8 ppm Chlordane—0.37 ppm Chloroform—5.4 ppm Chrysene—170 ppm Dibenz(a,h)anthracene—0.083 ppm 1,2-Dichloroethane—4.1 ppm Dichloromethane—2.4 ppm 2,4-Dichlorophenol—480 ppm Dichlorvos—260 ppm Disulfaton—23 ppm Endosulfan I—310 ppm Fluorene—120 ppm Indeno(1,2,3-cd)pyrene—330 ppm Methyl parathion—210 ppm Nitrosodiphenylamine—130 ppm Phenanthrene—150 ppm Polychlorinated biphenyls—0.31 ppm Tetrachloroethylene—59 ppm 2,4,5-TP (silvex)—110 ppm 2,4,6-Trichlorophenol—3.9 ppm. And detected wastewater concentrations do not exceed the following levels: Acetone—35 ppm Aldrin—0.000018 ppm Benzene—0.044 ppm Benzo(a)pyrene—0.000027 ppm Benzo(b)fluoranthene—0.00018 ppm Biphenyl—15 ppm Bis-2-ethylhexyl phthalate—6.2 ppm Chlordane—0.00024 ppm Chlorobenzene—8.8 ppm Chloroform—0.052 ppm Chrysene—0.0018 ppm 2,4-D—3.5 ppm Dibenz(a,h)anthracene—0.000006 ppm Dichloromethane—0.042 ppm 1,3-Dichlorobenzene—34 ppm 1,4-Dichlorobenzene—0.66 ppm 1,2-Dichlorobenzene—26 ppm 1,2-Dichloroethane—0.044 ppm 2,4-Dichlorophenol—0.88 ppm Dichlorvos—0.78 ppm Diethyl phthalate—4,400 ppm Disulfaton—0.016 ppm Endosulfan I—0.020 ppm

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		Ethyl benzene—35 ppm Fluoranthene—1.8 ppm Fluorene—0.018 ppm Indeno(1,2,3-cd)pyrene—0.0018 ppm Isophorone—62 ppm Methyl chloride—35 ppm Methyl parathion—0.099 ppm Naphthalene—80 ppm Nitrosodiphenylamine—0.063 ppm Pentachlorophenol—8.8 ppm Phenanthrene—0.018 ppm Phenol—8.8 ppm Polychlorinated biphenyls—0.000072 ppm Pyrene—35 ppm Tetrachloroethylene—0.059 ppm 2,3,4,6-Tetrachlorophenol—8.8 ppm Toluene—88 ppm 2,4,5-TP (silvex)—0.088 ppm 1,2,4-Trichlorobenzene—6.2 ppm 2,4,6-Trichlorophenol—0.018 ppm 2,4,5-Trichlorophenol—35 ppm 2,4,5-Trichlorophenoxyacetic acid—0.88 ppm Xylene—619 ppm; (5) RCB must generate, prior to disposal of residues, verification data from each eight hour run for each treatment residue (*i.e.*, kiln ash, cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the residues do not contain tetra-, penta-, or hexachlorodibenzo-p-dioxins or furans at levels of regulatory concern. Samples must be collected as specified in conditions (2) and (3). The TCDD equivalent levels for solids must be less than 5 ppt and for wastewater the levels must be below 0.002 ppt. Any residues with detected dioxins or furans in excess of these levels must be retreated or must be disposed as acutely hazardous. Method 8290, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method, must be used. For tetra- and penta-chlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for solids and 120 ppq for wastewaters. For hexachlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 37 ppt for solids and 0.3 ppt for wastewaters. (6) The test data from conditions (1), (2), (3), (4) and (5) must be kept on file by RCB for inspection purposes and must be compiled, summarized, and submitted to the Assistant Administrator for Solid Waste and Emergency Response by certified mail on a monthly basis and when the treatment of the cancelled pesticides and related materials is concluded. The testing requirements for conditions (2), (3), (4), and (5) will continue until RCB provides the Assistant Administrator with the results of four consecutive batch analyses for the petitioned wastes, none of which exceed the maximum allowable treatment residue concentrations listed in these conditions and the Assistant Administrator notifies RCB that the conditions have been lifted. All data submitted will be placed in the RCRA docket. (7) RCB must provide a signed copy of the following certification statement when submitting data in response to the conditions listed above: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations, I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) accuracy, I certify as the Agency official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete."

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Envirite Corporation.	Canton, Ohio; Harvey, Illinois; Thomaston, Connecticut; and York, PA.	Dewatered wastewater sludges (EPA Hazardous Waste No. F006) generated from electroplating operations; spent cyanide plating solutions (EPA Hazardous Waste No. F007) generated from electroplating operations; plating bath residues from the bottom of plating baths (EPA Hazardous Waste No. F008) generated from electroplating operations where cyanides are used in the process; spent stripping and cleaning bath solutions (EPA Hazardous Waste No. F009) generated from electro-plating operations where cyanides are used in the process; spent cyanide solutions from salt bath pot cleaning (EPA Hazardous Waste No. F011) generated from Metal heat treating operations; quenching wastewater treatment sludges (EPA Hazardous Waste No. F012) generated from metal heat treating where cyanides are used in the process; wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after November 14, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusions to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the EP Toxicity test for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 0.315 ppm; barium levels exceed 6.3 ppm; cadmium and selenium exceed 0.063 ppm; mercury exceeds 0.0126 ppm; or nickel levels exceed 2.205 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (3) Each batch of waste must be tested for the total content of specific organic toxicants. If the total content of anthracene exceeds 76.8 ppm, 1,2-diphenyl hydrazine exceeds 0.001 ppm, methylene chloride exceeds 8.18 ppm, methyl ethyl ketone exceeds 326 ppm, n-nitrosodiphenylamine exceeds 11.9 ppm, phenol exceeds 1,566 ppm, tetrachloroethylene exceeds 0.188 ppm, or trichloroethylene exceeds 0.592 ppm, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 and 265 and the permitting standards of 40 CFR Part 270. (4) A grab sample must be collected from each batch to form one monthly composite sample which must be tested using GC/MS analysis for the compounds listed in #3 above as well as the remaining organics on the priority pollutant list. (See 47 FR 52309 November 19, 1982, for a list of the priority pollutants.) (5) The data from conditions 1–4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail semi-annually. The Agency will review this information and if needed will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above are not required until six months from the date of promulgation. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment systems at these facilities applies only to the wastewater and solids treatment systems as they presently exist as described in the delisting petition. The exclusion does not apply to the proposed process additions described in the petition as recovery including crystalization, electrolytic metals recovery, evaporative recovery, and ion exchange.
Falconer Glass Indust., Inc.	Falconer, NY	Wastewater treatment sludges from the filter press and magnetic drum separator (EPA Hazardous Waste No. F006) generated from electroplating operations after July 16, 1986.
Florida Production Engineering Company.	Daytona Beach, Florida.	This is a one-time exclusion. Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in four on-site trenches on January 23, 1987.
General Cable Co.	Muncie, IN	Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F006 and K062) generated from electroplating operations and steel finishing operations after October 24, 1986. This exclusion does not apply to sludges in any on-site impoundments as of this date.
General Electric Company.	Shreveport Louisiana.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in four on-site treatment ponds on August 12, 1987.
General Motors Corp., Fisher Body Division.	Elyria, OH	The residue generated from the use of the Chemfix® treatment process on sludge (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in three on-site surface impoundments on November 14, 1986. To assure that stabilization occurs, the following conditions apply to this exclusion: (1) Mixing ratios shall be monitored continuously to assure consistent treatment.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(2) One grab sample of the treated waste shall be taken each hour as it is pumped to the holding area (cell) from each trailer unit. At the end of each production day, the grab samples from the individual trailer units will be composited and the EP toxicity test will be run on each composite sample. If lead or total chromium concentrations exceed 0.315 ppm or if nickel exceeds 2.17 ppm, in the EP extract, the waste will be removed and retreated or disposed of as a hazardous waste. (3) The treated waste shall be pumped into bermed cells which are constructed to assure that the treated waste is identifiable and retrievable (*i.e.*, the material can be removed and either disposed of as a hazardous waste or retreated if conditions 1 or 2 are not met). Failure to satisfy any of these conditions would render the exclusion void. This is a one-time exclusion, applicable only to the residue generated from the use of the Chemfix® treatment process on the sludge currently contained in the three on-site surface impoundments.
Goodyear Tire and Rubber Co..	Randleman, NC..	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations.
Gould, Inc	McConnelsville, OH.	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Hanover Wire Cloth Division.	Hanover, Pennsylvania.	Dewatered filter cake (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
Holston Army Ammunition Plant.	Kingsport, Tennessee.	Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F003, F005, and K044) generated from the manufacturing and processing of explosives and containing spent non-halogenated solvents after November 14, 1986.
Imperial Clevite.	Salem, IN	Solid resin cakes containing EPA Hazardous Waste No. F002 generated after August 27, 1985, from solvent recovery operations.
International Minerals and Chemical Corporation.	Terre Haute, Indiana.	Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste No. F003) generated from the recovery of n-butyl alchohol after August 15, 1986.
Kay-Fries, Inc	Stoney Point, NY.	Biological aeration lagoon sludge and filter press sludge generated after September 21, 1984, which contain EPA Hazardous Waste Nos. F003 and F005 as well as that disposed of in a holding lagoon as of September 21, 1984.
Keymark Corp	Fonda, NY	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from chemical conversion coating of aluminum after November 27, 1985.
Keymark Corp	Fonda, New York.	Wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum and contained in an on-site impoundment on August 12, 1987. This is a one-time exclusion.
Lederle Laboratories..	Pearl River, NY..	Spent non–halogenated solvents and still bottoms (EPA Hazardous Waste Nos. F003 and F005) generated from the recovery of the following solvents: Xylene, acetone, ethyl acetate, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol, toluene, and pyridine after August 2, 1986. Excusion applies to primary and secondery filter press sludges and compost soils generated from these sludges.
Lincoln Plating Company.	Lincoln, NE	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after November 17, 1986.
Loxcreen Company, Inc.	Hayti, MO	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1986.
Marquette Electronics Incorporated..	Milwaukee, Wisconsin..	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations. This exclusion was published on April 20, 1989.
Martin Marietta Aerospace.	Ocala, Florida	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after January 23, 1987.
Merck & Company, Incorporated.	Elkton, Virginia.	One-time exclusion for fly ash (EPA Hazardous Waste No. F002) from the incineration of wastewater treatment sludge generated from pharmaceutical production processes and stored in an on-site fly ash lagoon. This exclusion was published on May 12, 1989.
Maytag Company.	Newton, IA	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum November 17, 1986.
Metropolitan Sewer District of Greater Cincinnati.	Cincinnati, OH..	Sluiced bottom ash sludge (approximately 25,000 cubic yards), contained in the North Lagoon, on September 21, 1984, which contains EPA Hazardous Wastes Nos. F001, F002, F003, F004, and F005.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Michelin Tire Corp.	Sandy Springs, South Carolina.	Dewatered wastewater treatment sludge (EPA Hazardous Wastes No. F006) generated from electroplating operations after November 14, 1986.
Monroe Auto Equipment.	Paragould, AR	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after vacuum filtration after November 27, 1985. This exclusion does not apply to the sludge contained in the on-site impoundment.
North American Philips Consumer Electronics Corporation.	Greenville, Tennessee.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations. This exclusion was published on April 20, 1989.
Pamcor C, Inc	Las Piedras, PR.	Dewatered Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after October 17, 1986.
Plastene Supply Company.	Portageville, Missouri.	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
Reynolds Metals Company.	Sheffield, AL	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after August 15, 1986.
Siegel-Robert, Inc.	St. Louis, MO	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Square D Company	Oxford, Ohio	Dewatered filter press sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
Syntex Agribusiness.	Springfield, MO.	Kiln ash, cyclone ash, separator sludge, and filtered wastewater (except spent activiated carbon) (EPA Hazardous Waste No. F020 generated during the treatment of wastewater treatment sludge by the EPA's Mobile Incineration System at the Denney Farm Site in McDowell, Missouri after June 2, 1988, so long as: (1) The incinerator is monitored continuously and is in compliance with operating permit conditions. Should the incinerator fail to comply with the permit conditions relevant to the mechanical operation of the incinerator, Syntex must test the residues generated during the run when the failure occurred according to the requirements of Conditions (2) through (6), regardless of whether or not the demonstration in Condition (7) has been made. (2) Four grab samples of wastewater must be composited from the volume of filtered wastewater collected after each eight hour run and, prior to disposal the composite samples must be analyzed for the EP toxic metals, nickel, and cyanide. If arsenic, chromium, lead, and silver EP leachate test results exceed 0.61 ppm; barium levels exceed 12 ppm; cadmium and selenium levels exceed 0.12 ppm; mercury levels exceed 0.02 ppm; nickel levels exceed 0.1 ppm; or cyanide levels exceed 2.4 ppm, the wastewater must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. Analyses must be performed according to SW-846 methodologies. (3) One grab sample must be taken from each drum of kiln and cyclone ash generated during each eight hour run; all grabs collected during a given eight hour run must then be composited to form one composite sample. A composite sample of four grab samples of the separator sludge must be collected at the end of each eight hour run. Prior to the disposal of the residues from each eight hour run, an EP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide extraction) to demonstrate that the following maximum allowable treatment residue concentrations listed below are not exceeded. Analyses must be performed according to SW-846 methodologies. Any residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. Maximum Allowable Solids Treatment Residue EP Leachate Concentrations (mg/L) Arsenic—1.6 Barium—32 Cadmium—0.32 Chromium—1.6 Lead—1.6 Mercury—0.065 Nickel—16 Selenium—0.32 Silver—1.6 Cyanide—6.5

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(4)—If Syntex stabilizes any of the kiln and cyclone ash or separator sludge, a Portland cement-type stabilization process must be used and Syntex must collect a composite sample of four grab samples from each batch of stabilized waste. An MEP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide leachate analysis) to demonstrate that the maximum allowable treatment residue concentrations listed in Condition (3) are not exceeded during any run of the MEP extraction. Analyses must be performed according to SW-846 methodologies. Any residues which exceed any of the levels listed in Condition (3) must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. (If the residues are stabilized, the analyses required in this condition supercede the analyses required in Condition (3).) (5) Syntex must generate, prior to disposal of residues, verification data from each eight hour run from each treatment residue (*i.e.*, kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in Conditions (2) and (3). Analyses must be performed according to SW-846 methodologies. Any solid or liquid residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with Subtitle C of RCRA. Maximum Allowable Wastewater Concentrations (ppm): Benz(a)anthracene—1×10^{-4} Benzo(a)pyrene—4×10^{-5} Benzo(b)fluoranthene—2×10^{-4} Chloroform—0.07 Chrysene—0.002 Dibenz(a,h)anthracene—9×10^{-6} 1,2-Dichloroethane—0.06 Dichloromethane—0.06 Indeno(1,2,3-cd)pyrene—0.002 Polychlorinated biphenyls—1×10^{-4} 1,2,4,5-Tetrachlorobenzene—0.13 2,3,4,6-Tetrachlorophenol—12 Toluene—120 Trichloroethylene—0.04 2,4,5-Trichlorophenol—49 2,4,6-Trichlorophenol—0.02 Maximum Allowable Solid Treatment Residue Concentrations (ppm): Benz(a)anthracene—1.1 Benzo(a)pyrene—0.43 Benzo(b)fluoranthene—1.8 Chloroform—5.4 Chrysene—170 Dibenz(a,h)anthracene—0.083 Dichloromethane—2.4 1,2-Dichloroethane—4.1 Indeno(1,2,3-cd)pyrene—330 Polychlorinated biphenyls—0.31 1,2,4,5-Tetrachlorobenzene—720 Trichloroethylene—6.6 2,4,6-Trichlorophenol—3.9 (6) Syntex must generate, prior to disposal of residues, verification data from each eight hour run for each treatment residue (*i.e.*, kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the residues do not contain tetra-, penta-, or hexachlorodibenzo-p-dioxins or furans at levels of regulatory concern. Samples must be collected as specified in Conditions (2) and (3). The TCDD equivalent levels for wastewaters must be less than 2 ppq and less than 5 ppt for the solid treatment residues. Any residues with detected dioxins or furans in excess of these levels must be retreated or must be disposed as acutely hazardous. Method 8290, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method, must be used. For tetra- and pentachloronated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for solids and 120 ppq for wastewaters. For hexachlorinated homologs, the maximum practical quantitation limit must not exceed 37 ppt for solids and 300 ppq for wastewaters. (7)(A) The test data from Conditions (1), (2), (3), (4), (5) and (6) must be kept on file by Syntex for inspection purposes and must be compiled, summarized, and submitted to the Section Chief, Variances Section, PSPD/OSW (WH-563), US EPA, 401 M Street, S.W., Washington, D.C. 20460 by certified mail on a monthly basis and when the treatment of the lagoon sludge is concluded. All data submitted will be placed in the RCRA docket.

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TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(B) The testing requirements for Conditions (2), (3), (4), (5), and (6) will continue until Syntex provides the Section Chief, Variances Section, with the results of four consecutive batch analyses for the petitioned wastes, none of which exceed the maximum allowable treatment residue concentrations listed in these conditions and the Section Chief, Variances Section, notifies Syntex that the conditions have been lifted. (8) Syntex must provide a signed copy of the following certification statement when submitting data in response to the conditions listed above: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations, I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete."
SR of Tennessee	Ripley, TN	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from the copper, nickel, and chromium electroplating of plastic parts after November 17, 1986.
Tennessee Electroplating.	Ripley, Tennessee.	Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F006) generated from electroplating operations after November 17, 1986. To ensure chromium levels do not exceed the regulatory standards there must be continuous batch testing of the filter press sludge for chromium for 45 days after the exclusion is granted. Each batch of treatment residue must be representatively sampled and tested using the EP toxicity test for chromium. This data must be kept on file at the facility for inspection purposes. If the extract levels exceed 0.922 ppm of chromium the waste must be managed and disposed of as hazardous. If these conditions are not met, the exclusion does not apply. This exclusion does not apply to sludges in any on-site impoundments as of this date.
Texas Instruments, Inc.	Dallas, TX	Wastewater treatment sludges (EPA Hazardous Waste Nos. F006 and F019) generated after August 27, 1985, from their electroplating operations that have been batch tested for cadmium using the EP toxicity procedure and have been found to contain less than 0.30 ppm cadmium in the EP extract. Wastewater treatment sludges that exceed this level will be considered a hazardous waste.
Triol Environmental Systems, Inc.	Hilliard, Ohio	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after November 17, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusion to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 0.315 ppm; barium levels exceed 6.3 ppm; cadmium and selenium levels exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (3) Each batch of the waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. Compound and Maximum Acceptable Levels (ppm) Acrolein, 56.8 Anthracene, 76.8 Benzene, 0.106 p-Chloro-m-cresol, 133 1,1-Dichloroethane, 0.01 Fluorene, 10.4 Methylene chloride, 8.2 Methyl ethyl ketone, 326 n-Nitrosodiphenylamine, 11.9 Phenanthrene, 14 Tetrachloroethylene, 0.188 Trichloroethylene, 0.59 Chloroform, 0.013 1,2-Dichloroethane, 0.0083 1,2-trans-Dichloroethylene, 231 2,4-Dimethylphenol, 12.5 Vinyl chloride, 0.18

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(4) A grab sample must be collected from each batch to form one monthly composite sample, which must be tested using GC/MS analysis for the compounds shown above as well as the remaining organics on the priority pollutant list. (See 47 FR 52309, November 19, 1982, for a list of the priority pollutants.) (5) The test data from conditions 1–4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail on a semiannual basis. The Agency will review this information and if needed, will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue as described in the petition.
Tricil Environmental Systems, Inc.	Nashville, Tennessee	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from chemical conversion coating of aluminum after November 17, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusion to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 1.1 ppm; barium levels exceed 22.2 ppm; cadmium and selenium levels exceed 0.22 ppm; mercury levels exceed 0.044 ppm; or nickel levels exceed 7.8 ppm, the waste will be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 4.4 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (3) Each batch of the waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. Compound and Maximum Acceptable Levels (ppm) Acrolein, 363 Anthracene, 492 Benzene, 0.68 p-Chloro-m-cresol, 848 1,1-Dichloroethane, 0.068 Fluorene, 66.7 Methylene chloride, 52.4 n-Nitrosodiphenylamine, 76.1 Phenanthrene, 89 Tetrachloroethylene, 1.2 Trichloroethylene, 3.78 Chloroform, 0.081 1,2-Dichloroethane, 0.053 2,4-Dimethylphenol, 79.7 Vinyl chloride, 1.16 1,2-Diphenyl hydrazine, 0.005 (4) A grab sample must be collected from each batch to form one monthly composite sample, which must be tested using GC/MS analyses for the compounds shown above as well as the remaining organics on the priority pollutant list. (See 47 FR 52309, November 19, 1982, for a list of the priority pollutants.) (5) The test data from conditions 1–4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail on a semiannual basis. The Agency will review this information and if needed, will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue as described in the petition.
Tricil Environmental Systems, Inc.	Muskegon, Michigan.	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after November 17, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusion to be valid:

Table 1—Wastes Excluded From Non-Specific Sources—Continued

Facility	Address	Waste description
		(1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 0.315 ppm; barium levels exceed 6.3 ppm; cadmium and selenium levels exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (3) Each batch of the waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. Compound and Maximum Acceptable Levels (ppm) Acrolein, 56.8 Anthracene, 768 Benzene, 0.106 p-Chloro-m-cresol, 133 1,1-Dichloroethene, 0.01 Fluorene, 10.4 Methylene chloride, 8.2 Methyl ethyl ketone, 326 n-Nitrosodiphenylamine, 11.9 Phenanthrene, 14 Tetrachloroethylene, 0.188 Trichloroethylene, 0.59 Chloroform, 0.013 1,2-Dichloroethane, 0.0083 1,2-trans-Dichloroethylene, 231 2,4-Dimethylphenol, 12.5 Vinyl chloride, 0.18 (4) A grab sample must be collected from each batch to form one monthly composite sample, which must be tested using GC/MS analysis for the compounds shown above as well as the remaining organics on the priority pollutant list. (See 47 FR 52309, November 19, 1982, for a list of the priority pollutants.) (5) The test data from conditions 1–4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail on a semiannual basis. The Agency will review this information and if needed, will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue as described in this petition.
United Technologies Automotive, Inc.	Jeffersonville, IN.	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. FO19) generated from the chemical conversion of aluminum after April 29, 1986.
Universal Oil Products.	Decatur, Alabama.	Wastewater Treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in two on-site lagoons on August 15, 1986. This is a one-time exclusion.
U.S. EPA Combustion Research Facility.	Jefferson, Arkansas.	One-time exclusion for scrubber water (EPA Hazardous Waste No. F020) generated in 1985 from the incineration of Vertac still bottoms. This exclusion was published on June 28, 1989.
U.S. Nameplate Company, Inc.	Mount Vernon, Iowa.	Retreated wastewater treatment sludges (EPA Hazardous Waste No. F006) previously generated from electroplating operations and currently contained in an on-site surface impoundment after September 26, 1988. This is a one-time exclusion for the reteated wastes only. This exclution does not relieve the waste unit from regulatory compliance under Subtitle C.
VAW of America Incorporated.	St. Augustine, Florida.	Wastewater treatment sludge filter cake (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum. This exclusion was published on February 1, 1989.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Vermont American, Corp.	Newark, OH	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Waterloo Industries.	Pocahontas, AR.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after dewatering and held on-site on July 17, 1986 and any such sludge generated (after dewatering) after July 17, 1986.
Watervliet Arsenal.	Watervliet, NY	Wastewater treatment sludges (EPA Hazardous Waste No F006) generated from electroplating operations after January 10, 1986.
William L. Bonnell Co.	Carthage, TN	Dewatered Wastewater treatment sludges (Vacuum filter sludge) (EPA Hazardous Waste No F019) currently generated from the chemical conversion coating of aluminum after October 17, 1986. This exclusion does not apply to sludges in the on-site surface impoundments.
William L. Bonnell Co.	Newnan, Georgia.	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after November 14, 1986. This exclusion does not include sludges contained in Bonnell's on-site surface impoundments.
Windsor Plastics, Inc.	Evansville, IN	Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste No. F003) generated from the recovery of acetone after November 17, 1986.

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
American Cyanamid.	Hannibal, Missouri.	Wastewater and sludge (EPA Hazardous Waste No. K038) generated from the washing and stripping of phorate production and contained in on-site lagoons on May 8, 1987, and such wastewater and sludge generated after May 8, 1987.
Amoco Oil Co.	Wood River, IL.	150 million gallons of DAF from petroleum refining contained in in four surge ponds after treatment with the Chemifix® stabilization process. This waste contains EPA Hazardous Waste No. K048. This exclusion applies to the 150 million gallons of waste after chemical stabilization as long as the mixing ratios of the reagent with the waste are monitored continuously and do not vary outside of the limits presented in the demonstration samples; one grab sample is taken each hour from each treatment unit, composited, and EP toxicity tests performed on each sample. If the levels of lead or total chromium exceed 0.5 ppm in the EP extract, then the waste that was processed during the compositing period is considered hazardous; the treatment residue shall be pumped into bermed cells to ensure that the waste is identifiable in the event that removal is necessary.
Bethlehem Steel Corp..	Steelton, PA	Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethlehem must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid: (1) *Testing:* (A) *Initial Testing:* During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch. (B) *Subsequent Testing:* Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnised upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania. (2) *Delisting levels:* If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l or for nickel exceeds 0.0126 mg/l; for cyanide exceeds 1.26 mg/l, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.

Table 2—Wastes Excluded From Specific Sources—Continued

Facility	Address	Waste description
		(3) *Data submittals:* Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, S.W., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. "As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. "In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."
Bethlehem Steel Corp.	Johnstown, PA.	Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained from a labortory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethleham must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid: (1) *Testing:* (A) *Initial Testing:* During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch. (B) *Subsequent Testing:* Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employeee or representative of EPA or the State of Pennsylvania. (2) *Delisting levels:* If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l, for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 1.26 mg/l, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA. (3) *Data submittals:* Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, SW., Washington, DC 20406 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. "As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. "In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."
CF&I Steel Corporation..	Pueblo, Colorado..	Fully-cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (EPA Hazardous Waste No. K061) generated from the primary production of steel after May 9, 1989. This exclusion is conditioned upon the data obtained from CF&I's full-scale CSEAFD treatment facility because CF&I's original data was obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, CF&I must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid: (1) *Testing:* (A) *Initial Testing:* During the first four weeks of operation of the full-scale treatment system, CF&I must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. CF&I must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch. (B) *Subsequent Testing:* CF&I must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. CF&I then must analyze each weekly composite sample for the EP leachate concentrations of all of the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Colorado. (2) *Delisting levels:* If the EP extract concentrations determined in conditions (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/1; for barium exceeds 6.3 mg/1; for cadmium or selenium exceed 0.063 mg/1; for mercury exceeds 0.0126 mg/1; for nickel exceeds 3.15 mg/1; or for cyanide exceeds 4.42 mg/1, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA. (3) *Data submittals:* Within one week of system start-up, CF&I must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, SW., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, CF&I must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke CF&I's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement: "Under civil and criminal penalty of law for the making of submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Envirite Corporation.	Canton, Ohio; Harvey, Illinois; Thomaston, Connecticut; and York PA.	Spent pickle liquor (EPA Hazardous Waste No. K062) generated from steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332); wastewater treatment sludge (EPA Hazardous Waste No. K002) generated from the production of chrome yellow and orange pigments; wastewater treatment sludge (EPA Hazardous Waste No. K003) generated from the production of molybdate orange pigments; wastewater treatment sludge (EPA Hazardous Waste No. K004) generated from the production of zinc yellow pigments; wastewater treatment sludge (EPA Hazardous Waste No. K005) generated from the production of chrome green pigments; wastewater treatment sludge (EPA Hazardous Waste No. K006) generated from the production of chrome oxide green pigments (anhydrous and hydrated); wastewater treatment sludge (EPA Hazardous Waste No. K007) generated from the production of iron blue pigments; oven residues (EPA Hazardous Waste No. K008) generated from the production of chrome oxide green pigments after November 14, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusions to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the EP Toxicity test for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 0.315 ppm; barium levels exceed 6.3 ppm; cadmium and selenium exceed 0.063 ppm; mercury exceeds 0.0126 ppm; or nickel levels exceed 2.205 ppm, the waste must be retreated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR 270. (3) Each batch of waste must be tested for the total content of specific organic toxicants. If the total content of anthracene exceeds 76.8 ppm, 1,2-diphenyl hydrazine exceeds 0.001 ppm, methylene chloride exceeds 8.18 ppm, methyl ethyl ketone exceeds 326 ppm, n-nitrosodiphenylamine exceeds 11.9 ppm, phenol exceeds 1,566 ppm, tetrachloroethylene exceeds 0.188 ppm, or trichloroethylene exceeds 0.592 ppm, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (4) A grab sample must be collected from each batch to form one monthly composite sample which must be tested using GC/MS analysis for the compounds listed in #3 above as well as the remaining organics on the priority pollutan list. (See 47 FR 52309, November 19, 1982, for a list of the priority pollutants.) (5) The data from conditions 1–4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail semi-annually. The Agency will review this information and if needed will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until six months from the date of promulgation. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment systems at these facilities applies only to the wastewater and solids treatment systems as they presently exist as described in the delisting petition. The exclusion does not apply to the proposed process additions described in the petition as recovery, including crystalization, electrolytic metals recovery, evaporative recovery, and ion exchange.
LCP Chemical	Orrington, ME	Brine purification muds and wastewater treatment sludges generated after August 27, 1985 from their chlor-alkali manufacturing operations (EPA Hazardous Waste Nos. K071 and K106) that have been batch tested for mercury using the EP toxicity procedures and have been found to contain less than 0.05 ppm mercury in the EP extract. Brine purification muds and wastewater treatment sludges that exceed this level will be considered a hazardous waste.
Mearl Corp	Peekskill, NY	Wastewater treatment sludge (EPA Hazardous Waste Nos. K006 and K007) generated from the production of chrome oxide green and iron blue pigments after November 27, 1985.
Monsanto Industrial Chemicals Company.	Sauget, Illinois	Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately prepurified brine is not used after August 15, 1986.

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Roanoke Electric Steel Corp..	Roanoke, VA....	Fully-cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (EPA Hazardous Waste No. K061) generated from the primary production of steel after March 22, 1989. This exclusion is conditioned upon the data obtained from Roanoke's full-scale CSEAFD treatment facility because Roanoke's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Roanoke must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid: (1) *Testing:* (A) *Initial testing:* During the first four weeks of operation of the full-scale treatment system, Roanoke must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. Roanoke must report the analytical test data obtained during the initial period no later than 90 days after the treaument of the first full-scale batch. *(B) Subsequent testing: Roanoke must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Roanoke then must analyze each weekly composite sample for all of the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Virginia.* (2) *Delisting levels:* If the EP extract concentrations for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 1.26 mg/l, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA. *(3) Data submittals: Within one week of system start-up, Roanoke must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system in on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, SW., Washington, DC 20460 within the time period specified in condition (1)(A). Failure to submit the required data or keep the required records will be considered by the Agency, at its discretion, sufficient basis to revoke Roanoke's exclusion.* All data must be accompanied by the following certification statement: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 USC 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."
Stauffer Chemical Co.	Axis, AL............	Brine purification muds generated from their chlor-alkali manufacturing operatings (EPA Hazardous Waste No. K071) and disposed of in brine mud pond HWTF: 5 EP-201.
Stauffer Chemical Co.	St. Gabriel, LA .	Brine purification muds, which have been washed and vacuum filtered, generated after August 27, 1985 from their chlor-alkali manufacturing operations (EPA Hazardous Waste No. K071) that have been batch tested for mercury using the EP toxicity procedure and have been found to contain less than 0.05 ppm in mercury in the EP extract. Brine purification muds that exceed this level will be considered a hazardous waste.
Tricil Environmental Systems, Inc.	Hilliard, Ohio.....	Spent pickle liquor (EPA Hazardous Waste No. K062) generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) after November 17, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusions to be valid:

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and nickel. If the extract concentrations for chromium, lead, arsenic, barium, and silver exceed 6.3 ppm; cadmium and selenium exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be retreated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using ther EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. (3) Each batch of waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 and 265 and the permitting standards of 40 CFR Part 270. Compound and Maximum Acceptable Levels (ppm) Acrolein, 56.8 Anthracene, 76.8 Benzene, 0.106 p-Chloro-m-cresol, 133 1,1-Dichloroethane, 0.01 Fluorene, 10.4 Methylenechloride, 8.2 Methyl ethyl ketone, 326 n-Nitrosodiphenylamine, 11.9 Phenanthrene, 14 Tetrachloroethylene, 0.188 Trichloroethylene, 0.59 Chloroform, 0.013 1,2-Dichloroethane, 0.0083 1,2-trans-Dichloroethylene, 231 2,4-Dimethylphenol, 12.5 Vinyl chloride, 0.18 1,2-Diphenyl hydrazine, 0.001 (4) A grab sample must be collected from each batch to form one monthy composite sample, which must be tested using GC/MS analysis for the organic compounds shown above, as well as the remaining organics on the priority pollutant list (see 47 FR 52309, November 19, 1982, Appendix A-126 Priority Pollutants). (5) The test data from conditions 1-4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail on a semiannual basis. The Agency will review this information and if needed, will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue described in this petition.
Tricil Environmental System, Inc.	Muskegon, Michigan.	Spent pickle liquor (EPA Hazardous Waste No. K062) generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332); after November 17, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusion to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and nickel. If the extract concentrations for chromium, lead, arsenic, barium, and silver exceed 6.3 ppm, cadmium and selenium exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be retreated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR 270. (2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270.

TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(3) Each batch of waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 and 265 and the permitting standards of 40 CFR Part 270: Compound and Maximum Acceptable Levels (ppm) Acrolein, 56.8 Anthracene, 76.8 Benzene, 0.106 p-Chloro-m-cresol, 133 1,1-Dichloroethane, 0.01 Fluorene, 10.4 Methylenechloride, 8.2 Methyl ethyl ketone, 326 n-Nitrosodiphenylamine, 11.9 Phenanthrene, 14 Tetrachloroethylene, 0.188 Trichloroethylene, 0.59 Chloroform, 0.013 1,2-Dichloroethane, 0.0083 1,2-trans-Dichloroethylene, 231 2,4-Dimethylphenol, 12.5 Vinyl chloride, 0.18 1,2-Diphenyl hydrazine, 0.001 (4) A grab sample must be collected from each batch to form one monthly composite sample, which must be tested using GC/MS analysis for the organic compounds shown above, as well as the remaining organics on the priority pollutant list (see 47 FR 52309, November 19, 1982, Appendix A-126 Priority Pollutants). (5) The test data from conditions 1-4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail on a semiannual basis. The Agency will review this information and if needed, will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4 above is not required until May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wasterwater treatment system at this facility applies only to the wastewater treatment residue described in this petition.
Vulcan Materials Company.	Port Edwards, WI.	Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately prepurified brine is not used after November 17, 1986. To assure that mercury levels in this waste are maintained at acceptable levels, the following conditions apply to this exclusion: Each batch of treated brine clarifier muds and saturator insolubles must be tested (by the extraction procedure) prior to disposal and the leachate concentration of mercury must be less than or equal to 0.0129 ppm. If the waste does not meet this requirement, then it must be re-treated or disposed of as hazardous. This exclusion does not apply to wastes for which either of these conditions is not satisfied.

TABLE 3—WASTES EXCLUDED FROM COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES, AND SOIL RESIDUES THEREOF

Facility	Address	Waste description
Union Carbide Corp.	Taft, LA............	Contaminated soil (approximately 11,000 cubic yards), which contains acrolein in concentrations of less than 9 ppm.

[49 FR 37070, Sept. 21, 1984]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting Appendix IX of Part 261, see the List of CFR Sections Affected in the Finding Aids section of this volume.

APPENDIX X—METHOD OF ANALYSIS FOR CHLORINATED DIBENZO-P-DIOXINS AND -DIBENZOFURANS [1, 2, 3, 4]

Method 8280

1. *Scope and Application*

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[1] This method is appropriate for the analysis of tetra-, penta-, and hexachlorinated dibenzo-*p*-dioxins and -dibenzofurans.

[2] Analytical protocol for determination of TCDDs in phenolic chemical wastes and soil samples obtained from the proximity of chemical dumps. T.O. Tiernan and M. Taylor. Brehm Laboratory, Wright State University, Dayton, OH 45435.

Continued

1.1 This method measures the concentration of chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans in chemical wastes including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soils.

1.2 The sensitivity of this method is dependent upon the level of interferences.

1.3 This method is recommended for use only by analysts experienced with residue analysis and skilled in mass spectral analytical techniques.

1.4 Because of the extreme toxicity of these compounds, the analyst must take necessary precautions to prevent exposure to himself, or to others, of materials known or believed to contain CDDs or CDFs.

2. *Summary of the Method*

2.1 This method is an analytical extraction cleanup procedure, and capillary column gas chromatograph-low resolution mass spectrometry method, using capillary column GC/MS conditions and internal standard techniques, which allow for the measurement of PCDDs and PCDFs in the extract.

2.2 If interferences are encountered, the method provides selected general purpose cleanup procedures to aid the analyst in their elimination.

3. *Interferences*

3.1 Solvents, reagents, glassware, and other sample processing hardware may yield discrete artifacts and/or elevated baselines causing misinterpretation of gas chromatograms. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by running method blanks. Specific selection of reagents and purification of solvents by distillation in all-glass systems may be required.

3.2 Interferences co-extracted from the samples will vary considerably from source to source, depending upon the diversity of the industry being sampled. PCDD is often associated with other interfering chlorinated compounds such as PCB's which may be at concentrations several orders of magnitude higher than that of PCDD. While general cleanup techniques are provided as part of this method, unique samples may require additional cleanup approaches to achieve the sensitivity stated in Table 1.

TABLE 1—GAS CHROMATOGRAPHY OF TCDD

Column	Retention time (min.)	Detection limit (μg/kg)[1]
Glass capillary	9.5	0.003

[1] Detection limit for liquid samples is 0.003 μg/l. This is calculated from the minimum detectable GC response being equal to five times the GC background noise assuming a 1 ml effective final volume of the 1 liter sample extract, and a GC injection of 5 microliters. Detection levels apply to both electron capture and GC/MS detection. For further details see 44 FR 69526 (December 3, 1979).

3.3 The other isomers of tetrachlorodibenzo-*p*-dioxin may interfere with the measurement of 2,3,7,8-TCDD. Capillary column gas chromatography is required to resolve those isomers that yield virtually identical mass fragmentation patterns.

4. *Apparatus and Materials*

4.1. Sampling equipment for discrete or composite sampling.

4.1.1 Grab sample bottle—amber glass, 1-liter or 1-quart volume. French or Boston Round design is recommended. The container must be washed and solvent rinsed before use to minimize interferences.

4.1.2. Bottle caps—threaded to screw on to the sample bottles. Caps must be lined with Teflon. Solvent washed foil, used with the shiny side towards the sample, may be substituted for the Teflon if sample is not corrosive.

4.1.3. Compositing equipment—automatic or manual composing system. No tygon or rubber tubing may be used, and the system must incorporate glass sample containers for the collection of a minimum of 250 ml. Sample containers must be kept refrigerated after sampling.

4.2 Water bath—heated, with concentric ring cover, capable of temperature control (±2 °C). The bath should be used in a hood.

4.3 Gas chromatograph/mass spectrometer data system.

4.3.1 Gas chromatograph: An analytical system with a temperature-programmable

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[3] Analytical protocol for determination of chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans in river water. T.O. Tiernan and M. Taylor. Brehm Laboratory, Wright State University, Dayton, OH 45435.

[4] In general, the techniques that should be used to handle these materials are those which are followed for radioactive or infectious laboratory materials. Assistance in evaluating laboratory practices may be obtained from industrial hygienists and persons specializing in safe laboratory practices. Typical infectious waste incinerators are probably not satisfactory devices for disposal of materials highly contaminated with CDDs or CDFs. Safety instructions are outlined in EPA Test Method 613(4.0)

See also: (1) "Program for monitoring potential contamination in the laboratory following the handling and analyses of chlorinated dibenzo-p-dioxins and dibenzofurans" by F. D. Hileman et al., *In:* Human and Environmental Risks of Chlorinated Dioxins and Related Compounds, R.E. Tucker, et al, eds., Plenum Publishing Corp., 1983. 2) Safety procedures outlined in EPA Method 613, Federal Register volume 44, No. 233, December 3, 1979.

gas chromatograph and all required accessories including syringes, analytical columns, and gases.

4.3.2 Column: SP-2250 coated on a 30 m long × 0.25 mm I.D. glass column (Supelco No. 2-3714 or equivalent). Glass capillary column conditions: Helium carrier gas at 30 cm/sec linear velocity run splitless. Column temperature is 210 °C.

4.3.3 Mass spectrometer: Capable of scanning from 35 to 450 amu every 1 sec or less, utilizing 70 volts (nominal) electron energy in the electron impact ionization mode and producing a mass spectrum which meets all the criteria in Table 2 when 50 ng of decafluorotriphenyl-phosphine (DFTPP) is injected through the GC inlet. The system must also be capable of selected ion monitoring (SIM) for at least 4 ions simultaneously, with a cycle time of 1 sec or less. Minimum integration time for SIM is 100 ms. Selected ion monitoring is verified by injecting .015 ng of TCDD Cl^{37} to give a minimum signal to noise ratio of 5 to 1 at mass 328.

TABLE 2—DFTPP KEY IONS AND ION ABUNDANCE CRITERIA[1]

Mass	Ion abundance criteria
51	30–60% of mass 198.
68	Less than 2% of mass 69.
70	Less than 2% of mass 69.
127	40–60% of mass 198.
197	Less than 1% of mass 198.
198	Base peak, 100% relative abundance.
199	5–9% of mass 198.
275	10–30% of mass 198.
365	Greater than 1% of mass 198.
441	Present but less than mass 443.
442	Greater than 40% of mass 198.
443	17–23% of mass 442.

[1] J. W. Eichelberger, L.E. Harris, and W.L. Budde. 1975. Reference compound to calibrate ion abundance measurement in gas chromatography-mass spectrometry. Analytical Chemistry 47:995.

4.3.4 GC/MS interface: Any GC-to-MS interface that gives acceptable calibration points at 50 ng per injection for each compound of interest and achieves acceptable tuning performance criteria (see Sections 6.1 through 6.3) may be used. GC-to-MS interfaces constructed of all glass or glass-lined materials are recommended. Glass can be deactivated by silanizing with dichlorodimethylsilane. The interface must be capable of transporting at least 10 ng of the components of interest from the GC to the MS.

4.3.5 Data system: A computer system must be interfaced to the mass spectrometer. The system must allow the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program. The computer must have software that can search any GC/MS data file for ions of a specific mass and that can plot such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be able to integrate the abundance, in any EICP, between specified time or scan number limits.

4.4 Pipettes-Disposable, Pasteur, 150 mm long × 5 mm ID (Fisher Scientific Co., No. 13-678-6A or equivalent).

4.5 Flint glass bottle (Teflon-lined screw cap).

4.6 Reacti-vial (silanized) (Pierce Chemical Co.).

5. *Reagents*

5.1 Potassium hydroxide-(ACS), 2% in distilled water.

5.2 Sulfuric acid-(ACS), concentrated.

5.3 Methylene chloride, hexane, benzene, petroleum ether, methanol, tetradecane-pesticide quality or equivalent.

5.4 Prepare stock standard solutions of TCDD and ^{37}Cl-TCDD (molecular weight 328) in a glove box. The stock solutions are stored in a glovebox, and checked frequently for signs of degradation or evaporation, especially just prior to the preparation of working standards.

5.5 Alumina-basic, Woelm; 80/200 mesh. Before use activate overnight at 600°C, cool to room temperature in a dessicator.

5.6 Prepurified nitrogen gas

6.0 *Calibration*

6.1 Before using any cleanup procedure, the analyst must process a series of calibration standards through the procedure to validate elution patterns and the absence of interferences from reagents.

6.2 Prepare GC/MS calibration standards for the internal standard technique that will allow for measurement of relative response factors of at least three CDD/^{37}CDD ratios. Thus, for TCDDs, at least three TCDD/^{37}Cl-TCDD and TCDF/^{37}Cl-TCDF must be determined.[5] The ^{37}Cl-TCDD/F concentration in the standard should be fixed and selected to yield a reproducible response at the most sensitive setting of the mass spectrometer. Response factors for PCDD and HxCDD may be determined by measuring the response of the tetrachloro-labelled compounds relative to that of the unlabelled 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PCDD or 1,2,3,4,7,8-HxCDD, which are commercially available.[6]

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[5] ^{37}Cl-labelled 2,3,7,8-TCDD and 2,3,7,8-TCDF are available from K.O.R. Isotopes, and Cambridge Isotopes, Inc., Cambridge, MA. Proper standardization requires the use of a specific labelled isomer for each congener to be determined. However, the only labelled isomers readily available are ^{37}Cl-2,3,7,8-TCDD and ^{37}Cl-2,3,7,8-TCDF. This method therefore uses these isomers as surrogates for the CDDs and CDFs. When other labelled CDDs and CDFs are available, their use will be required.

6.3 Assemble the necessary GC/MS apparatus and establish operating parameters equivalent to those indicated in Section 11.1 of this method. Calibrate the GC/MS system according to Eichelberger, et al. (1975) by the use of decafluorotriphenyl phosphine (DFTPP). By injecting calibration standards, establish the response factors for CDDs *vs.* ^{37}Cl-TCDD, and for CDFs *vs.* ^{37}Cl-TCDF. The detection limit provided in Table 1 should be verified by injecting .015 ng of ^{37}Cl-TCDD which should give a minimum signal to noise ratio of 5 to 1 at mass 328.

7. *Quality Control*

7.1 Before processing any samples, the analyst should demonstrate through the analysis of a distilled water method blank, that all glassware and reagents are interference-free. Each time a set of samples is extracted, or there is a change in reagents, a method blank should be processed as a safeguard against laboratory contamination.

7.2 Standard quality assurance practices must be used with this method. Field replicates must be collected to measure the precision of the sampling technique. Laboratory replicates must be analyzed to establish the precision of the analysis. Fortified samples must be analyzed to establish the accuracy of the analysis.

8. *Sample Collection, Preservation, and Handling*

8.1 Grab and composite samples must be collected in glass containers. Conventional sampling practices should be followed, except that the bottle must not be prewashed with sample before collection. Composite samples should be collected in glass containers in accordance with the requirements of the RCRA program. Sampling equipment must be free of tygon and other potential sources of contamination.

8.2 The samples must be iced or refrigerated from the time of collection until extraction. Chemical preservatives should not be used in the field unless more than 24 hours will elapse before delivery to the laboratory. If an aqueous sample is taken and the sample will not be extracted within 48 hours of collection, the sample should be adjusted to a pH range of 6.0–8.0 with sodium hydroxide or sulfuric acid.

8.3 All samples must be extracted within 7 days and completely analyzed within 30 days of collection.

9. *Extraction and Cleanup Procedures*

9.1 Use an aliquot of 1-10 g sample of the chemical waste or soil to be analyzed. Soils should be dried using a stream of prepurified nitrogen and pulverized in a ball-mill or similar device. Perform this operation in a clear area with proper hood space. Transfer the sample to a tared 125 ml flint glass bottle (Teflon-lined screw cap) and determine the weight of the sample. Add an appropriate quantity of ^{37}Cl-labelled 2,3,7,8-TCDD (adjust the quantity according to the required minimum detectable concentration), which is employed as an internal standard.

9.2 Extraction

9.2.1 Extract chemical waste samples by adding 10 ml methanol, 40 ml petroleum ether, 50 ml doubly distilled water, and then shaking the mixture for 2 minutes. Tars should be completely dissolved in any of the recommended neat solvents. Activated carbon samples must be extracted with benzene using method 3540 in SW-846 (Test Methods for Evaluating Solid Waste—Physical/Chemical Methods, available from G.P.O. Stock #055-022-81001-2). Quantitatively transfer the organic extract or dissolved sample to a clean 250 ml flint glass bottle (Teflon lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.2.2 Extract soil samples by adding 40 ml of petroleum ether to the sample, and then shaking for 20 minutes. Quantitatively transfer the organic extract to a clean 250 ml flint glass bottle (Teflon-lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.3 Wash the organic layer with 50 ml of 20% aqueous potassium hydroxide by shaking for 10 minutes and then remove and discard the aqueous layer.

9.4 Wash the organic layer with 50 ml of doubly distilled water by shaking for 2 minutes, and discard the aqueous layer.

9.5 Cautiously add 50 ml concentrated sulfuric acid and shake for 10 minutes. Allow the mixture to stand until layers separate (approximately 10 minutes), and remove and discard the acid layer. Repeat acid washing until no color is visible in the acid layer.

9.6 Add 50 ml of doubly distilled water to the organic extract and shake for 2 minutes. Remove and discard the aqueous layer and dry the organic layer by adding 10g of anhydrous sodium sulfate.

9.7 Concentrate the extract to incipient dryness by heating in a 55° C water bath and simultaneously flowing a stream of prepurified nitrogen over the extract. Quantitatively transfer the residue to an alumina microcolumn fabricated as follows:

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[6] This procedure is adopted because standards are not available for most of the CDDs and CDFs, and assumes that all the congeners will show the same response as the unlabelled congener used as a standard. Although this assumption may not be true in all cases, the error will be small.

9.7.1 Cut off the top section of a 10 ml disposable Pyrex pipette at the 4.0 ml mark and insert a plug of silanized glass wool into the tip of the lower portion of the pipette.

9.7.2 Add 2.8g of Woelm basic alumina (previously activated at 600° C overnight and then cooled to room temperature in a desiccator just prior to use).

9.7.3 Transfer sample extract with a small volume of methylene chloride.

9.8 Elute the microcolumn with 10 ml of 3% methylene chloride-in-hexane followed by 15 ml of 20% methylene chloride-in-hexane and discard these effluents. Elute the column with 15 ml of 50% methylene chloride-in-hexane and concentrate this effluent (55° C water bath, stream of prepurified nitrogen) to about 0.3-0.5 ml.

9.9 Quantitatively transfer the residue (using methylene chloride to rinse the container) to a silanized Reacti-Vial (Pierce Chemical Co.). Evaporate, using a stream of prepurified nitrogen, almost to dryness, rinse the walls of the vessel with approximately 0.5 ml methylene chloride, evaporate just to dryness, and tightly cap the vial. Store the vial at 5° C until analysis, at which time the sample is reconstituted by the addition of tridecane.

9.10 Approximately 1 hour before GC-MS (HRGC-LRMS) analysis, dilute the residue in the micro-reaction vessel with an appropriate quantity of tridecane. Gently swirl the tridecane on the lower portion of the vessel to ensure dissolution of the CDDs and CDFs. Analyze a sample by GC/EC to provide insight into the complexity of the problem, and to determine the manner in which the mass spectrometer should be used. Inject an appropriate aliquot of the sample into the GC-MS instrument, using a syringe.

9.11 If, upon preliminary GC-MS analysis, the sample appears to contain interfering substances which obscure the analyses for CDDs and CDFs, high performance liquid chromatographic (HPLC) cleanup of the extract is accomplished, prior to further GC-MS analysis.

10. *HPLC Cleanup Procedure*[7]

10.1 Place approximately 2 ml of hexane in a 50 ml flint glass sample bottle fitted with a Teflon-lined cap.

10.2 At the appropriate retention time, position sample bottle to collect the required fraction.

10.3 Add 2 ml of 5% (w/v) sodium carbonate to the sample fraction collected and shake for one minute.

10.4 Quantitatively remove the hexane layer (top layer) and transfer to a micro-reaction vessel.

10.5 Concentrate the fraction to dryness and retain for further analysis.

11. *GC/MS Analysis*

11.1 The following column conditions are recommended: Glass capillary column conditions: SP-2250 coated on a 30 m long x 0.25 mm I.D. glass column (Supelco No. 2-3714, or equivalent) with helium carrier gas at 30 cm/sec linear velocity, run splitless. Column temperature is 210°C. Under these conditions the retention time for TCDDs is about 9.5 minutes. Calibrate the system daily with, a minimum, three injections of standard mixtures.

11.2 Calculate response factors for standards relative to ^{37}Cl-TCDD/F (see Section 12).

11.3 Analyze samples with selected ion monitoring of at least two ions from Table 3. Proof of the presence of CDD or CDF exists if the following conditions are met:

11.3.1 The retention time of the peak in the sample must match that in the standard, within the performance specifications of the analytical system.

11.3.2 The ratio of ions must agree within 10% with that of the standard.

11.3.3 The retention time of the peak maximum for the ions of interest must exactly match that of the peak.

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[7] For cleanup see also method #8320 or #8330, SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (1982).

TABLE 3—LIST OF ACCURATE MASSES MONITORED USING GC SELECTED-ION MONITORING, LOW RESOLUTION, MASS SPECTROMETRY FOR SIMULTANEOUS DETERMINATION OF TETRA-, PENTA-, AND HEXACHLORINATED DIBENZO-*p*-DIOXINS AND DIBENZOFURANS

Class of chlorinated dibenzodioxin or dibenzofuran	Number of chlorine substituents (x)	Monitored m/z for dibenzodioxins $C_{12}H_{8-x}O_2Cl_x$	Monitored m/z for dibenzofurans $C_{12}H_{8-x}OCl_x$	Approximate theoretical ratio expected on basis of isotopic abundance
Tetra	4	[1] 319.897	[1] 303.902	0.74
		321.894	305.903	1.00
		[2] 327.885	[2] 311.894	
		[3] 256.933		0.21
		[3] 258.930		0.20
Penta	5	[1] 353.858	[1] 337.863	0.57
		355.855	339.860	1.00
Hexa	6	389.816	373.821	1.00
		391.813	375.818	0.87

[1] Molecular ion peak.

[2] Cl_4—labelled standard peaks.

[3] Ions which can be monitored in TCDD analyses for confirmation purposes.

11.4 Quantitate the CDD and CDF peaks from the response relative to the ^{37}Cl-TCDD/F internal standards. Recovery of the internal standard should be greater than 50 percent.

11.5 If a response is obtained for the appropriate set of ions, but is outside the expected ratio, a co-eluting impurity may be suspected. In this case, another set of ions characteristic of the CDD/CDF molecules should be analyzed. For TCDD a good choice of ions is m/e 257 and m/e 259. For TCDF a good choice of ions is m/e 241 and 243. These ions are useful in characterizing the molecular structure to TCDD or TCDF. For analysis of TCDD good analytical technique would require using all four ions, m/e 257, 320, 322, and 328, to verify detection and signal to noise ratio of 5 to 1. Suspected impurities such as DDE, DDD, or PCB residues can be confirmed by checking for their major fragments. These materials can be removed by the cleanup columns. Failure to meet criteria should be explained in the report, or the sample reanalyzed.

11.6 If broad background interference restricts the sensitivity of the GC/MS analysis, the analyst should employ cleanup procedures and reanalyze by GC/MS. See section 10.0.

11.7 In those circumstances where these procedures do not yield a definitive conclusion, the use of high resolution mass spectrometry is suggested.

12. *Calculations*

12.1 Determine the concentration of individual compounds according to the formula:

$$\text{Concentration, } \mu g/gm = \frac{A \times A_s}{G \times A_{is} \times R_f}$$

where:

A = µg of internal standard added to the sample [8]

G = gm of sample extracted

A_s = area of characteristic ion of the compound being quantified.

A_{is} = area of characteristic ion of the internal standard

R_f = response factor [9]

Response factors are calculated using data obtained from the analysis of standards according to the formula:

$$Rf \quad \frac{A_s \times C_{is}}{A_{is} \times C_s}$$

where:

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[8] The proper amount of standard to be used is determined from the calibration curve (See Section 6.0).

[9] If standards for PCDDs/Fs and HxCDDs/Fs are not available, response factors for ions derived from these congeners are calculated relative to ^{37}Cl-TCDD/F. The analyst may use response factors for 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PeCDD, or 1,2,3,4,7,8-HxCDD for quantitation of TCDDs/Fs, PeCDDs/Fs and HxCDDs/Fs, respectively. Implicit in this requirement is the assumption that the same response is obtained from PCDDs/Fs ccontaining the same numbers of chlorine atoms.

C_s=concentration of the internal standard

C_c=concentration of the standard compound

12.2 Report results in micrograms per gram without correction for recovery data. When duplicate and spiked samples are analyzed, all data obtained should be reported.

12.3 Accuracy and Precision. No data are available at this time.

[50 FR 2001, Jan. 14, 1985]

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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APPENDIX—UNIFORM HAZARDOUS WASTE MANIFEST AND INSTRUCTIONS (EPA FORMS 8700-22 AND 8700-22A AND THEIR INSTRUCTIONS)

AUTHORITY: 42 U.S.C. 6906, 6912, 6922, 6923, 6924, 6925, and 6937.

SOURCE: 45 FR 33142, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 262.10 Purpose, scope, and applicability.

(a) These regulations establish standards for generators of hazardous waste.

(b) A generator who treats, stores, or disposes of hazardous waste on-site must only comply with the following sections of this part with respect to that waste: Section 262.11 for determining whether or not he has a hazardous waste, § 262.12 for obtaining an EPA identification number, § 262.34 for accumulation of hazardous waste, § 262.40 (c) and (d) for recordkeeping, § 262.43 for additional reporting, and if applicable, § 262.70 for farmers.

(c) Any person who imports hazardous waste into the United States must comply with the standards applicable to generators established in this part.

(d) A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of § 262.70 is not required to comply with other standards in this part or 40 CFR parts 270, 264, 265, or 268 with respect to such pesticides.

(e) A person who generates a hazardous waste as defined by 40 CFR Part 261 is subject to the compliance requirements and penalties prescribed in section 3008 of the Act if he does not comply with the requirements of this part.

(f) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this part.

NOTE 1: The provisions of § 262.34 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

NOTE 2: A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in 40 CFR Parts 264, 265, and 266 and Part 270.

[45 FR 33142, May 19, 1980, as amended at 45 FR 86970, Dec. 31, 1980; 47 FR 1251, Jan. 11, 1982; 48 FR 14294, Apr. 1, 1983; 53 FR 27164, July 19, 1988]

§ 262.11 Hazardous waste determination.

A person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.

(b) He must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261.

NOTE: Even if the waste is listed, the generator still has an opportunity under 40 CFR 260.22 to demonstrate to the Administrator that the waste from his particular facility or operation is not a hazardous waste.

(c) If the waste is not listed as a hazardous waste in Subpart D of 40 CFR Part 261, he must determine whether the waste is identified in Subpart C of 40 CFR Part 261 by either:

(1) Testing the waste according to the methods set forth in Subpart C of 40 CFR Part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Parts 264, 265, 268 of this chapter for possible exclusions or restrictions pertaining to management of his specific waste.

[45 FR 33142, May 19, 1980, as amended at 45 FR 76624, Nov. 19, 1980; 51 FR 40637, Nov. 7, 1986]

§ 262.12 EPA identification numbers.

(a) A generator must not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Administrator.

(b) A generator who has not received an EPA identification number may obtain one by applying to the Administrator using EPA form 8700-12. Upon receiving the request the Administrator will assign an EPA identification number to the generator.

(c) A generator must not offer his hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

Subpart B—The Manifest

§ 262.20 General requirements.

(a) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2050-0039 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the instructions included in the Appendix to Part 262.

(b) A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste.

(e) The requirements of this subpart do not apply to hazardous waste produced by generators of greater than 100 kg but less than 1000 kg in a calendar month where:

(1) The waste is reclaimed under a contractual agreement pursuant to which:

(i) The type of waste and frequency of shipments are specified in the agreement;

(ii) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

(2) The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.

[45 FR 33142, May 19, 1980, as amended at 49 FR 10500, Mar. 20, 1984; 51 FR 10175, Mar. 24, 1986; 53 FR 45090, Nov. 8, 1988]

§ 262.21 Acquisition of manifests.

(a) If the State to which the shipment is manifested (consignment State) supplies the manifest and requires its use, then the generator must use that manifest.

(b) If the consignment State does not supply the manifest, but the State in which the generator is located (generator State) supplies the manifest and requires its use, then the generator must use that State's manifest.

(c) If neither the generator State nor the consignment State supplies the manifest, then the generator may obtain the manifest from any source.

[49 FR 10500, Mar. 20, 1984]

§ 262.22 Number of copies.

The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

§ 262.23 Use of the manifest.

(a) The generator must:

(1) Sign the manifest certification by hand; and

(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(3) Retain one copy, in accordance with § 262.40(a).

(b) The generator must give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with this section to:

(1) The next non-rail transporter, if any; or

(2) The designated facility if transported solely by rail; or

(3) The last rail transporter to handle the waste in the United States if exported by rail.

NOTE: See § 263.20(e) and (f) for special provisions for rail or water (bulk shipment) transporters.

[45 FR 33142, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980]

Subpart C—Pre-Transport Requirements

§ 262.30 Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR Parts 173, 178, and 179.

§ 262.31 Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172.

§ 262.32 Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304:

> HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.
>
> Generator's Name and Address ———.
> Manifest Document Number ———.

§ 262.33 Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR Part 172, Subpart F.

§ 262.34 Accumulation time.

(a) Except as provided in paragraphs (d), (e), and (f) of this section, a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, provided that:

(1) The waste is placed in containers and the generator complies with Subpart I of 40 CFR Part 265, or the waste is placed in tanks and the generator complies with Subpart J of 40 CFR Part 265, except § 265.197(c), and § 265.200. In addition, such a generator is exempt from all the requirements in Subparts G and H of 40 CFR Part 265, except for § 265.111 and § 265.114.

(2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(4) The generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR Part 265 and with § 265.16.

(b) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270 unless he has been granted an extension to the 90-day period. Such extension may be granted by EPA if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Regional Administrator on a case-by-case basis.

(c)(1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in § 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he:

(i) Complies with §§ 265.171, 265.172, and 265.173(a) of this chapter; and

(ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

(2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in § 261.33(e) in excess of the amounts listed in paragraph (c)(1) of this section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with paragraph (a) of this section or other applicable provisions of this chapter. During the three day period the generator must continue to comply with paragraphs (c)(1)(i) through (ii) of this section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(d) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

(1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;

(2) The generator complies with the requirements of Subpart I of Part 265, except § 265.176;

(3) The generator complies with the requirements of § 265.201 in Subpart J of Part 265;

(4) The generator complies with the requirements of paragraphs (a)(2) and (a)(3) of this section and the requirements of Subpart C of Part 265; and

(5) The generator complies with the following requirements:

(i) At all times there must be at least one employee either on the premises or on call (*i.e.*, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph (d)(5)(iv) of this section. This employee is the emergency coordinator.

(ii) The generator must post the following information next to the telephone:

(A) The name and telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(B) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;

(C) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include the following information:

(1) The name, address, and U.S. EPA Identification Number of the generator;

(2) Date, time, and type of incident (*e.g.*, spill or fire);

(3) Quantity and type of hazardous waste involved in the incident;

(4) Extent of injuries, if any; and

(5) Estimated quantity and disposition of recovered materials, if any.

(e) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status provided that he complies with the requirements of paragraph (d) of this section.

(f) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days (or for more than 270 days if he must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more) is an operator of a storage facility and is subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270 unless he has been granted an extension to the 180-day (or 270-day if applicable) period. Such extension may be granted by EPA if hazardous wastes must remain on-site for longer than 180 days (or 270 days if applicable) due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Regional Administrator on a case-by-case basis.

[47 FR 1251, Jan. 11, 1982, as amended at 48 FR 14294, Apr. 1, 1983; 49 FR 49571, Dec. 20, 1984; 51 FR 10175, Mar. 24, 1986; 51 FR 25472, July 14, 1986]

Subpart D—Recordkeeping and Reporting

§ 262.40 Recordkeeping.

(a) A generator must keep a copy of each manifest signed in accordance with § 262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator must keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.

(c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with § 262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(d) The periods or retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

[45 FR 33142, May 19, 1980, as amended at 48 FR 3981, Jan. 28, 1983]

§ 262.41 Biennial report.

(a) A generator who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must prepare and submit a single copy of a Biennial Report to the Regional Administrator by March 1 of each even numbered year. The Biennial Report must be submitted on EPA Form 8700-13A, must cover generator activities during the previous year, and must include the following information:

(1) The EPA identification number, name, and address of the generator;

(2) The calendar year covered by the report;

(3) The EPA identification number, name, and address for each off-site treatment, storage, or disposal facility in the United States to which waste was shipped during the year;

(4) The name and EPA identification number of each transporter used during the reporting year for shipments to a treatment, storage or disposal facility within the United States;

(5) A description, EPA hazardous waste number (from 40 CFR Part 261, Subpart C or D), DOT hazard class, and quantity of each hazardous waste shipped off-site for shipments to a treatment, storage or disposal facility within the United States. This information must be listed by EPA identification number of each such off-site facility to which waste was shipped.

(6) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(7) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(8) The certification signed by the generator or authorized representative.

(b) Any generator who treats, stores, or disposes of hazardous waste on-site must submit a biennial report covering those wastes in accordance with the provisions of 40 CFR Parts 270, 264, 265, and 266. Reporting for exports of hazardous waste is not required on the Biennial Report form. A separate annual report requirement is set forth at 40 CFR 262.56.

[48 FR 3981, Jan. 28, 1983, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 28746, July 15, 1985; 51 FR 28682, Aug. 8, 1986]

§ 262.42 Exception reporting.

(a)(1) A generator of greater than 1000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.

(2) A generator of greater than 1000 kilograms of hazardous waste in a calendar month must submit an Exception Report to the EPA Regional Administrator for the Region in which the generator is located if he has not

received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery;

(ii) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(b) A generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the EPA Regional Administrator for the Region in which the generator is located.

NOTE: The submission to EPA need only be a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received.

(Information collection requirements approved by the Office of Management and Budget under control number 2050-0039)

[52 FR 35898, Sept. 23, 1987]

§ 262.43 Additional reporting.

The Administrator, as he deems necessary under sections 2002(a) and 3002(6) of the Act, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in 40 CFR Part 261.

§ 262.44 Special requirements for generators of between 100 and 1000 kg/mo.

A generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month is subject only to the following requirements in this subpart:

(a) Section 262.40(a), (c), and (d), recordkeeping;

(b) Section 262.42(b), exception reporting; and

(c) Section 262.43, additional reporting.

(Information collection requirements approved by the Office of Management and Budget under control number 2050-0039)

[52 FR 35899, Sept. 23, 1987]

Subpart E—Exports of Hazardous Waste

SOURCE: 51 FR 28682, Aug. 8, 1986, unless otherwise noted.

§ 262.50 Applicability.

This subpart establishes requirements applicable to exports of hazardous waste. Except to the extent § 262.58 provides otherwise, a primary exporter of hazardous waste must comply with the special requirements of this subpart and a transporter transporting hazardous waste for export must comply with applicable requirements of Part 263. Section 262.58 sets forth the requirements of international agreements between the United States and receiving countries which establish different notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of hazardous waste for shipments between the United States and those countries.

§ 262.51 Definitions.

In addition to the definitions set forth at 40 CFR 260.10, the following definitions apply to this subpart:

"Consignee" means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste will be sent.

"EPA Acknowledgement of Consent" means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

"Primary Exporter" means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with 40 CFR Part 262, Subpart B, or equivalent State provision, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

"Receiving country" means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short-term storage incidental to transportation).

"Transit country" means any foreign country, other than a receiving country, through which a hazardous waste is transported.

[53 FR 27164, July 19, 1988]

§ 262.52 General requirements.

Exports of hazardous waste are prohibited except in compliance with the applicable requirements of this Subpart and Part 263. Exports of hazardous waste are prohibited unless:

(a) Notification in accordance with § 262.53 has been provided;

(b) The receiving country has consented to accept the hazardous waste;

(c) A copy of the EPA Acknowledgment of Consent to the shipment accompanies the hazardous waste shipment and, unless exported by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment)).

(d) The hazardous waste shipment conforms to the terms of the receiving country's written consent as reflected in the EPA Acknowledgment of Consent.

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.53 Notification of intent to export.

(a) A primary exporter of hazardous waste must notify EPA of an intended export before such waste is scheduled to leave the United States. A complete notification should be submitted sixty (60) days before the initial shipment is intended to be shipped off site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the primary exporter, and include the following information:

(1) Name, mailing address, telephone number and EPA ID number of the primary exporter;

(2) By consignee, for each hazardous waste type:

(i) A description of the hazardous waste and the EPA hazardous waste number (from 40 CFR Part 261, Subparts C and D), U.S. DOT proper shipping name, hazard class and ID number (UN/NA) for each hazardous waste as identified in 49 CFR Parts 171 through 177;

(ii) The estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported.

(iii) The estimated total quantity of the hazardous waste in units as specified in the instructions to the Uniform Hazardous Waste Manifest Form (8700-22);

(iv) All points of entry to and departure from each foreign country through which the hazardous waste will pass;

(v) A description of the means by which each shipment of the hazardous waste will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));

(vi) A description of the manner in which the hazardous waste will be treated, stored or disposed of in the receiving country (e.g., land or ocean incineration, other land disposal, ocean dumping, recycling);

(vii) The name and site address of the consignee and any alternate consignee; and

(viii) The name of any transit countries through which the hazardous waste will be sent and a description of the approximate length of time the hazardous waste will remain in such country and the nature of its handling while there;

(b) Notification shall be sent to the Office of International Activities (A-106), EPA, 401 M Street, SW., Washington, DC 20460 with "Attention: Notification to Export" prominently displayed on the front of the envelope.

(c) Except for changes to the telephone number in paragraph (a)(1) of this section, changes to paragraph (a)(2)(v) of this section and decreases in the quantity indicated pursuant to paragraph (a)(2)(iii) of this section when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous waste specified in the original notification), the primary exporter must provide EPA with a written renotification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to paragraph (a)(2)(viii) of this section and in the ports of entry to and departure from transit countries pursuant to paragraph (a)(2)(iv) of this section) has been obtained and the primary exporter receives an EPA Acknowledgment of Consent reflecting the receiving country's consent to the changes.

(d) Upon request by EPA, a primary exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(e) In conjunction with the Department of State, EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of paragraph (a) of this section. Where a claim of confidentiality is asserted with respect to any notification information required by paragraph (a) of this section, EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

(f) Where the receiving country consents to the receipt of the hazardous waste, EPA will forward an EPA Acknowledgment of Consent to the primary exporter for purposes of § 262.54(h). Where the receiving country objects to receipt of the hazardous waste or withdraws a prior consent, EPA will notify the primary exporter in writing. EPA will also notify the primary exporter of any responses from transit countries.

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.54 Special manifest requirements.

A primary exporter must comply with the manifest requirements of 40 CFR 262.20 through 262.23 except that:

(a) In lieu of the name, site address and EPA ID number of the designated permitted facility, the primary exporter must enter the name and site address of the consignee;

(b) In lieu of the name, site address and EPA ID number of a permitted alternate facility, the primary exporter may enter the name and site address of any alternate consignee.

(c) In Special Handling Instructions and Additional Information, the primary exporter must identify the point of departure from the United States;

(d) The following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent";

(e) In lieu of the requirements of § 262.21, the primary exporter must obtain the manifest form from the primary exporter's State if that State supplies the manifest form and requires its use. If the primary exporter's State does not supply the manifest form, the primary exporter may obtain a manifest form from any source.

(f) The primary exporter must require the consignee to confirm in writing the delivery of the hazardous waste to that facility and to describe any significant discrepancies (as defined in 40 CFR 264.72(a)) between the manifest and the shipment. A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste.

(g) In lieu of the requirements of § 262.20(d), where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter must:

(1) Renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee in accordance with § 262.53(c) and obtain an EPA Acknowledgment of Consent prior to delivery; or

(2) Instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States; and

(3) Instruct the transporter to revise the manifest in accordance with the primary exporter's instructions.

(h) The primary exporter must attach a copy of the EPA Acknowledgment of Consent to the shipment to the manifest which must accompany the hazardous waste shipment. For exports by rail or water (bulk shipment), the primary exporter must provide the transporter with an EPA Acknowledgment of Consent which must accompany the hazardous waste but which need not be attached to the manifest except that for exports by water (bulk shipment) the primary exporter must attach the copy of the EPA Acknowledgment of Consent to the shipping paper.

(i) The primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with § 263.20(g)(4).

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.55 Exception reports.

In lieu of the requirements of § 262.42, a primary exporter must file an exception report with the Administrator if:

(a) He has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within forty-five (45) days from the date it was accepted by the initial transporter;

(b) Within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received;

(c) The waste is returned to the United States.

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.56 Annual reports.

(a) Primary exporters of hazardous waste shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year. Such reports shall include the following:

(1) The EPA identification number, name, and mailing and site address of the exporter;

(2) The calendar year covered by the report;

(3) The name and site address of each consignee;

(4) By consignee, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from 40 CFR Part 261, Subpart C or D), DOT hazard class, the name and US EPA ID number (where applicable) for each transporter used, the total amount of waste shipped and number of shipments pursuant to each notification;

(5) Except for hazardous waste produced by exporters of greater than 100 kg but less than 1000 kg in a calendar month, unless provided pursuant to § 262.41, in even numbered years:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(ii) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(6) A certification signed by the primary exporter which states:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately rsponsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

(b) Reports shall be sent to the following address: Office of International Activities (A-106), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.57 Recordkeeping.

(a) For all exports a primary exporter must:

(1) Keep a copy of each notification of intent to export for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(2) Keep a copy of each EPA Acknowledgment of Consent for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(3) Keep a copy of each confirmation of delivery of the hazardous waste from the consignee for at least three years from the date the hazardous waste was accepted by the initial transporter; and

(4) Keep a copy of each annual report for a period of at least three years from the due date of the report.

(b) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(Approved by the Office of Management and Budget under control number 2050-0035)

§ 262.58 International agreements. [(Reserved)]

Subpart F—Imports of Hazardous Waste

§ 262.60 Imports of hazardous waste.

(a) Any person who imports hazardous waste from a foreign country into the United States must comply with the requirements of this part and the special requirements of this subpart.

(b) When importing hazardous waste, a person must meet all the requirements of § 262.20(a) for the manifest except that:

(1) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number must be used.

(2) In place of the generator's signature on the certification statement, the U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

(c) A person who imports hazardous waste must obtain the manifest form from the consignment State if the State supplies the manifest and requires its use. If the consignment State does not supply the manifest form, then the manifest form may be obtained from any source.

[51 FR 28685, Aug. 8, 1986]

Subpart G—Farmers

§ 262.70 Farmers.

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in this part or other standards in 40 CFR Parts 264, 265, 268, or 270 for those wastes provided he triple rinses each emptied pesticide container in accordance with § 261.7(b)(3) and disposes of the pesticide residues on his own farm in a manner consisent with the disposal instructions on the pesticide label.

[53 FR 27165, July 19, 1988]

APPENDIX—UNIFORM HAZARDOUS WASTE MANIFEST AND INSTRUCTIONS (EPA FORMS 8700-22 AND 8700-22A AND THEIR INSTRUCTIONS)

U.S. EPA Form 8700-22

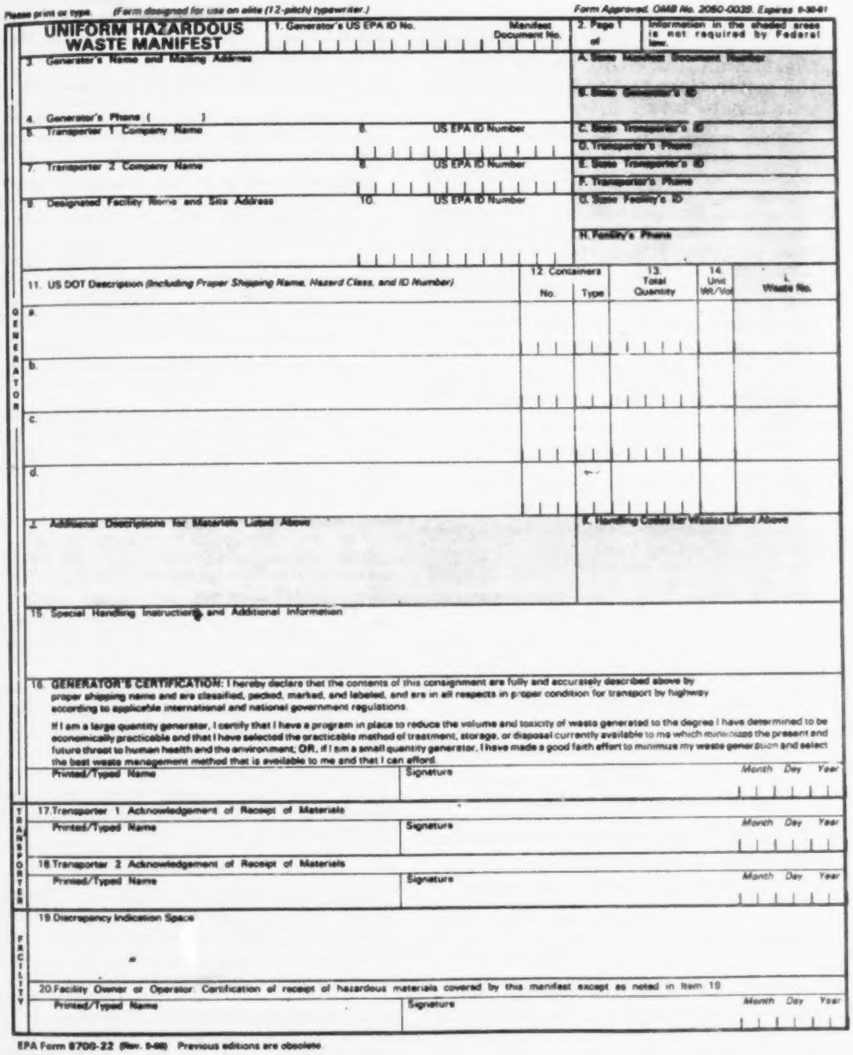
Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typerwriter; a firm point pen may also be used—press down hard.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to use this form (8700-22) and, if necessary, the continuation sheet (Form 8700-22A) for both inter and intrastate transportation.

Federal regulations also require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage and disposal facilities to complete the following information:

* * * * *



Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

10. US EPA ID Number

A. State Manifest Document Number

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					
b.					
c.					
d.					

GENERATOR

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | *Month Day Year*

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | *Month Day Year*

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | *Month Day Year*

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | *Month Day Year*

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

The following statement must be included with each Uniform Hazardous Waste Manifest, either on the form, in the instructions to the form, or accompanying the form:

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

GENERATORS

Item 1. Generator's U.S. EPA ID Number—Manifest Document Number

Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) by the generator.

Item 2. Page 1 of ——

Enter the total number of pages used to complete this Manifest, i.e., the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any.

Item 3. Generator's Name and Mailing Address

Enter the name and mailing address of the generator. The address should be the location that will manage the returned Manifest forms.

Item 4. Generator's Phone Number

Enter a telephone number where an authorized agent of the generator may be reached in the event of an emergency.

Item 5. Transporter 1 Company Name

Enter the company name of the first transporter who will transport the waste.

Item 6. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the first transporter identified in item 5.

Item 7. Transporter 2 Company Name

If applicable, enter the company name of the second transporter who will transport the waste. If more than two transporters are used to transport the waste, use a Continuation Sheet(s) (EPA Form 8700-22A) and list the transporters in the order they will be transporting the waste.

Item 8. U.S. EPA ID Number

If applicable, enter the U.S. EPA twelve digit identification number of the second transporter identified in item 7.

NOTE: If more than two transporters are used, enter each additional transporter's company name and U.S. EPA twelve digit identification number in items 24-27 on the Continuation Sheet (EPA Form 8700-22A). Each Continuation Sheet has space to record two additional transporters. Every transporter used between the generator and the designated facility must be listed.

Item 9. Designated Facility Name and Site Address

Enter the company name and site address of the facility designated to receive the waste listed on this Manifest. The address must be the site address, which may differ from the company mailing address.

Item 10. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the designated facility identified in item 9.

Item 11. U.S. DOT Description [Including Proper Shipping Name, Hazard Class, and ID Number (UN/NA)]

Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste as identified in 49 CFR 171 through 177.

NOTE: If additional space is needed for waste descriptions, enter these additional descriptions in item 28 on the Continuation Sheet (EPA Form 8700-22A).

Item 12. Containers (No. and Type)

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

Table I—Types of Containers

DM = Metal drums, barrels, kegs
DW = Wooden drums, barrels, kegs
DF = Fiberboard or plastic drums, barrels, kegs
TP = Tanks portable
TT = Cargo tanks (tank trucks)
TC = Tank cars
DT = Dump truck
CY = Cylinders
CM = Metal boxes, cartons, cases (including roll-offs)
CW = Wooden boxes, cartons, cases
CF = Fiber or plastic boxes, cartons, cases

BA=Burlap, cloth, paper or plastic bags

Item 13. Total Quantity

Enter the total quantity of waste described on each line.

Item 14. Unit (Wt./Vol.)

Enter the appropriate abbreviation from Table II (below) for the unit of measure.

Table II—Units of Measure

G=Gallons (liquids only)
P=Pounds
T=Tons (2000 lbs)
Y=Cubic yards
L=Liters (liquids only)
K=Kilograms
M=Metric tons (1000 kg)
N=Cubic meters

Item 15. Special Handling Instructions and Additional Information

Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States may not require additional, new, or different information in this space. For international shipments, generators must enter in this space the point of departure (City and State) for those shipments destined for treatment, storage, or disposal outside the jurisdiction of the United States.

Item 16. Generator's Certification

The generator must read, sign (by hand), and date the certification statement. If a mode *other than* highway is used, the word "highway" should be lined out and the appropriate mode (rail, water, or air) inserted in the space below. If another mode *in addition to* the highway mode is used, enter the appropriate additional mode (e.g., *and rail*) in the space below.

Primary exporters shipping hazardous wastes to a facility located outside of the United States must add to the end of the first sentence of the certification the following words "and conforms to the terms of the EPA Acknowledgment of Consent to the shipment."

In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements.

Generators may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator certifications.

NOTE: All of the above information *except* the handwritten signature required in item 16 may be preprinted.

* * * * *

TRANSPORTERS

Item 17. Transporter 1 Acknowledgement of Receipt of Materials

Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Item 18. Transporter 2 Acknowledgement of Receipt of Materials

Enter, if applicable, the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

NOTE: International Shipments—Transporter Responsibilities.

Exports—Transporters must sign and enter the date the waste left the United States in item 15 of Form 8700-22.

Imports—Shipments of hazardous waste regulated by RCRA and transported into the United States from another country must upon entry be accompanied by the U.S. EPA Uniform Hazardous Waste Manifest. Transporters who transport hazardous waste into the United States from another country are responsible for completing the Manifest (40 CFR 263.10(c)(1)).

Owners and Operators of Treatment, Storage, or Disposal Facilities

Item 19. Discrepancy Indication Space

The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any significant discrepancy between the waste described on the Manifest and the waste actually received at the facility.

Owners and operators of facilities located in unauthorized States (i.e., the U.S. EPA administers the hazardous waste management program) who cannot resolve significant discrepancies within 15 days of receiving the waste must submit to their Regional Administrator (see list below) a letter with a copy of the Manifest at issue describing the discrepancy and attempts to reconcile it (40 CFR 264.72 and 265.72).

Owners and operators of facilities located in authorized States (i.e., those States that have received authorization from the U.S. EPA to administer the hazardous waste program) should contact their State agency for information on State Discrepancy Report requirements.

EPA Regional Administrators

Regional Administrator, U.S. EPA Region I, J.F. Kennedy Fed. Bldg., Boston, MA 02203

Regional Administrator, U.S. EPA Region II, 26 Federal Plaza, New York, NY 10278

Regional Administrator, U.S. EPA Region III, 6th and Walnut Sts., Philadelphia, PA 19106

Regional Administrator, U.S. EPA Region IV, 345 Courtland St., NE., Atlanta, GA 30365

Regional Administrator, U.S. EPA Region V, 230 S. Dearborn St., Chicago, IL 60604

Regional Administrator, U.S. EPA Region VI, 1201 Elm Street, Dallas, TX 75270

Regional Administrator, U.S. EPA Region VII, 324 East 11th Street, Kansas City, MO 64106

Regional Administrator, U.S. EPA Region VIII, 1860 Lincoln Street, Denver, CO 80295

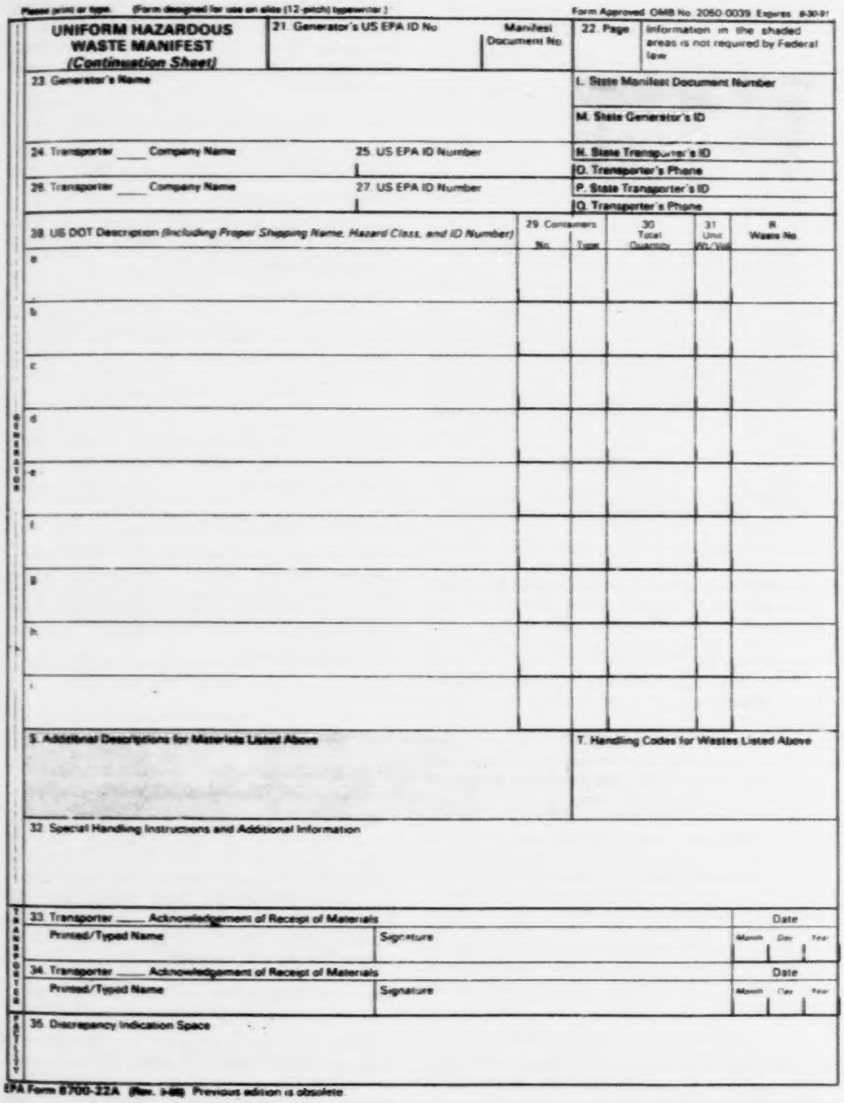
Regional Administrator, U.S. EPA Region IX, 215 Freemont Street, San Francisco, CA 94105

Regional Administrator, U.S. EPA Region X, 1200 Sixth Avenue, Seattle, WA 98101

Item 20. Facility Owner or Operator: Certification of Receipt of Hazardous Materials Covered by This Manifest Except as Noted in Item 19

Print or type the name of the person accepting the waste on behalf of the owner or operator of the facility. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Items A-K are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items A-K as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the Manifest.



Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST *(Continuation Sheet)*	21. Generator's US EPA ID No	Manifest Document No	22. Page	Information in the shaded areas is not required by Federal law
23. Generator's Name			L. State Manifest Document Number M. State Generator's ID
24. Transporter ____ Company Name	25. US EPA ID Number		N. State Transporter's ID O. Transporter's Phone
26. Transporter ____ Company Name	27. US EPA ID Number		P. State Transporter's ID Q. Transporter's Phone

GENERATOR

28. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt./Vol	R. Waste No.
a.					
b.					
c.					
d.					
e.					
f.					
g.					
h.					
i.					

S. Additional Descriptions for Materials Listed Above	T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year
34. Transporter ____ Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year

FACILITY

35. Discrepancy Indication Space

EPA Form 8700-22A (Rev. 9-88) Previous edition is obsolete

INSTRUCTIONS—CONTINUATION SHEET, U.S. EPA FORM 8700-22A

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

This form must be used as a continuation sheet to U.S. EPA Form 8700-22 if:

- More than two transporters are to be used to transport the waste;
- More space is required for the U.S. DOT description and related information in Item 11 of U.S. EPA Form 8700-22.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, or disposal facilities to use the uniform hazardous waste manifest (EPA Form 8700-22) and, if necessary, this continuation sheet (EPA Form 8700-22A) for both inter- and intrastate transportation.

GENERATORS

Item 21. Generator's U.S. EPA ID Number—Manifest Document Number

Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) as it appears in item 1 on the first page of the Manifest.

Item 22. Page ——

Enter the page number of this Continuation Sheet.

Item 23. Generator's Name

Enter the generator's name as it appears in item 3 on the first page of the Manifest.

Item 24. Transporter —— Company Name

If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word "Transporter" the order of the transporter. For example, Transporter *3* Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 25. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the transporter described in item 24.

Item 26. Transporter —— Company Name

If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word "Transporter" the order of the transporter. For example, Transporter *4* Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 27. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the transporter described in item 26.

Item 28. U.S. DOT Description Including Proper Shipping Name, Hazardous Class, and ID Number (UN/NA)

Refer to item 11.

Item 29. Containers (No. and Type)

Refer to item 12.

Item 30. Total Quantity

Refer to item 13.

Item 31. Unit (Wt./Vol.)

Refer to item 14.

Item 32. Special Handling Instructions

Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States are *not* authorized to require additional, new, or different information in this space.

* * * * *

TRANSPORTERS

Item 33. Transporter —— Acknowledgement of Receipt of Materials

Enter the same number of the Transporter as identified in item 24. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in item 24. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Item 34. Transporter —— Acknowledgement of Receipt of Materials

Enter the same number as identified in item 26. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in item 26. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

* * * * *

OWNERS AND OPERATORS OF TREATMENT, STORAGE, OR DISPOSAL FACILITIES

Item 35. Discrepancy Indication Space

Refer to item 19.

Items L-R are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items L-R as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the manifest.

[49 FR 10501, Mar. 20, 1984, as amended at 51 FR 28685, Aug. 8, 1986; 51 FR 35192, Oct. 1, 1986; 53 FR 45091, Nov. 8, 1988]

PART 263—STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

Subpart A—General

Sec.
263.10 Scope.
263.11 EPA identification number.
263.12 Transfer facility requirements.

Subpart B—Compliance With the Manifest System and Recordkeeping

263.20 The manifest system.
263.21 Compliance with the manifest.
263.22 Recordkeeping.

Subpart C—Hazardous Waste Discharges

263.30 Immediate action.
263.31 Discharge clean up.

AUTHORITY: Secs. 2002(a), 3002, 3003, 3004 and 3005 of the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 and as amended by the Quiet Communities Act of 1978, (42 U.S.C. 6912a, 6922, 6923, 6924, 6925).

SOURCE: 45 FR 33151, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 263.10 Scope.

(a) These regulations establish standards which apply to persons transporting hazardous waste within the United States if the transportation requires a manifest under 40 CFR Part 262.

NOTE: The regulations set forth in Parts 262 and 263 establish the responsibilities of generators and transporters of hazardous waste in the handling, transportation, and management of that waste. In these regulations, EPA has expressly adopted certain regulations of the Department of Transportation (DOT) governing the transportation of hazardous materials. These regulations concern, among other things, labeling, marking, placarding, using proper containers, and reporting discharges. EPA has expressly adopted these regulations in order to satisfy its statutory obligation to promulgate regulations which are necessary to protect human health and the environment in the transportation of hazardous waste. EPA's adoption of these DOT regulations ensures consistency with the requirements of DOT and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters. These EPA regulations which apply to both interstate and intrastate transportation of hazardous waste are enforceable by EPA.

DOT has revised its hazardous materials transportation regulations in order to encompass the transportation of hazardous waste and to regulate intrastate, as well as interstate, transportation of hazardous waste. Transporters of hazardous waste are cautioned that DOT's regulations are fully applicable to their activities and enforceable by DOT. These DOT regulations are codified in Title 49, Code of Federal Regulations, Subchapter C.

EPA and DOT worked together to develop standards for transporters of hazardous waste in order to avoid conflicting requirements. Except for transporters of bulk shipments of hazardous waste by water, a transporter who meets all applicable requirements of 49 CFR Parts 171 through 179 and the requirements of 40 CFR 263.11 and 263.31 will be deemed in compliance with this part. Regardless of DOT's action, EPA retains its authority to enforce these regulations.

(b) These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste must also comply with 40 CFR Part 262, Standards Applicable to Generators of Hazardous Waste, if he:

(1) Transports hazardous waste into the United States from abroad; or

(2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86968, Dec. 31, 1980]

§ 263.11 EPA identification number.

(a) A transporter must not transport hazardous wastes without having received an EPA identification number from the Administrator.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Administrator using EPA Form 8700-12. Upon receiving the request, the Administrator will assign an EPA identification number to the transporter.

§ 263.12 Transfer facility requirements.

A transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of § 262.30 at a transfer facility for a period of ten days or less is not subject to regulation under Parts 270, 264, 265, and 268 of this chapter with respect to the storage of those wastes.

[45 FR 86968, Dec. 31, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 51 FR 40637, Nov. 7, 1986]

Subpart B—Compliance With the Manifest System and Recordkeeping

§ 263.20 The manifest system.

(a) A transporter may not accept hazardous waste from a generator unless it is accompanied by a manifest signed in accordance with the provisions of 40 CFR 262.20. In the case of exports, a transporter may not accept such waste from a primary exporter or other person (1) if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and (2) unless, in addition to a manifest signed in accordance with the provisions of 40 CFR 262.20, such waste is also accompanied by an EPA Acknowledgment of Consent which, except for shipment by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment)).

(b) Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter must return a signed copy to the generator before leaving the generator's property.

(c) The transporter must ensure that the manifest accompanies the hazardous waste. In the case of exports, the transporter must ensure that a copy of the EPA Acknowledgment of Consent also accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility must:

(1) Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

(2) Retain one copy of the manifest in accordance with § 263.22; and

(3) Give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of paragraphs (c), (d) and (f) of this section do not apply to water (bulk shipment) transporters if:

(1) The hazardous waste is delivered by water (bulk shipment) to the designated facility; and

(2) A shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste; and

(3) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) The person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

(5) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with § 263.22.

(f) For shipments involving rail transportation, the requirements of paragraphs (c), (d) and (e) do not apply and the following requirements do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:

(i) Sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) Return a signed copy of the manifest to the non-rail transporter;

(iii) Forward at least three copies of the manifest to:

(A) The next non-rail transporter, if any; or,

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with § 263.22.

(2) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for exports an EPA Acknowledgment of Consent accompanies the hazardous waste at all times.

NOTE: Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with § 263.22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter must:

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with § 263.22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States must:

(1) Indicate on the manifest the date the hazardous waste left the United States; and

(2) Sign the manifest and retain one copy in accordance with § 263.22(c); and

(3) Return a signed copy of the manifest to the generator; and

(4) Give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

(h) A transporter transporting hazardous waste from a generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month need not comply with the requirements of this section or those of § 263.22 provided that:

(1) The waste is being transported pursuant to a reclamation agreement as provided for in § 262.20(e);

(2) The transporter records, on a log or shipping paper, the following information for each shipment:

(i) The name, address, and U.S. EPA Identification Number of the generator of the waste;

(ii) The quantity of waste accepted;

(iii) All DOT-required shipping information;

(iv) The date the waste is accepted; and

(3) The transporter carries this record when transporting waste to the reclamation facility; and

(4) The transporter retains these records for a period of at least three years after termination or expiration of the agreement.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980; 51 FR 10176, Mar. 24, 1986; 51 FR 28685, Aug. 8, 1986]

§ 263.21 Compliance with the manifest.

(a) The transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

(1) The designated facility listed on the manifest; or

(2) The alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(3) The next designated transporter; or

(4) The place outside the United States designated by the generator.

(b) If the hazardous waste cannot be delivered in accordance with paragraph (a) of this section, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

§ 263.22 Recordkeeping.

(a) A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in § 263.20(e)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

(i) The initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in § 263.20(f)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

(ii) The final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

NOTE: Intermediate rail transporters are not required to keep records pursuant to these regulations.

(d) A transporter who transports hazardous waste out of the United States must keep a copy of the manifest indicating that the hazardous waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980]

Subpart C—Hazardous Waste Discharges

§ 263.30 Immediate action.

(a) In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(b) If a discharge of hazardous waste occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must:

(1) Give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or 202-426-2675); and

(2) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

§ 263.31 Discharge clean up.

A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by Federal, State, or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

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Sec.

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APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE
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APPENDICES VII—VIII [RESERVED]
APPENDIX IX—GROUND-WATER MONITORING LIST

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

SOURCE: 45 FR 33221, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 264.1 Purpose, scope and applicability.

(a) The purpose of this part is to establish minimum national standards which define the acceptable management of hazardous waste.

(b) The standards in this part apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste, except as specifically provided otherwise in this part or Part 261 of this chapter.

(c) The requirements of this part apply to a person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act only to the extent they are included in a RCRA permit by rule granted to such a person under Part 270 of this chapter.

[*Comment:* These Part 264 regulations do apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.]

(d) The requirements of this part apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by § 144.14 of this chapter.

[*Comment:* These Part 264 regulations do apply to the above-ground treatment or storage of hazardous waste before it is injected underground.]

(e) The requirements of this part apply to the owner or operator of a POTW which treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Part 270 of this chapter.

(f) The requirements of this part do not apply to a person who treats, stores, or disposes of hazardous waste in a State with a RCRA hazardous waste program authorized under Subpart A of Part 271 of this chapter, or in a State authorized under Subpart B of Part 271 of this chapter for the component or components of Phase II interim authorization which correspond to the person's treatment, storage or disposal processes; except that this part will apply:

(1) As stated in paragraph (d) of this section, if the authorized State RCRA program does not cover disposal of hazardous waste by means of underground injection; and

(2) To a person who treats, stores or disposes of hazardous waste in a State authorized under Subpart A of Part 271 of this chapter, at a facility which was not covered by standards under this part when the State obtained authorization, and for which EPA promulgates standards under this part after the State is authorized. This paragraph will only apply until the State is authorized to permit such facilities under Subpart A of Part 271 of this chapter.

(3) To a person who treats, stores, or disposes of hazardous waste in a State which is authorized under Subpart A or B of Part 271 of this chapter if the State has not been authorized to carry out the requirements and prohibitions applicable to the treatment, storage, or disposal of hazardous waste at his facility which are imposed pursuant to the Hazardous and Solid Waste Amendments of 1984. The requirements and prohibitions that are applicable until a State receives authoriza-

tion to carry them out include all Federal program requirements identified in § 271.1(j).

(g) The requirements of this part do not apply to:

(1) The owner or operator of a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this part by § 261.5 of this chapter;

(2) The owner or operator of a facility managing recyclable materials described in § 261.6(a) (2) and (3) of this chapter (except to the extent that requirements of this part are referred to in Subparts C, D, F, or G of Part 266 of this chapter).

(3) A generator accumulating waste on-site in compliance with § 262.34 of this chapter;

(4) A farmer disposing of waste pesticides from his own use in compliance with § 262.70 of this chapter; or

(5) The owner or operator of a totally enclosed treatment facility, as defined in § 260.10.

(6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in § 260.10 of this chapter.

(7) [Reserved]

(8)(i) Except as provided in paragraph (g)(8)(ii) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this part must comply with all applicable requirements of Subparts C and D.

(iii) Any person who is covered by paragraph (g)(8)(i) of this section and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and Parts 122 through 124 of this chapter for those activities.

(9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less.

(10) The addition of absorbent material to waste in a container (as defined in § 260.10 of this chapter) or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §§ 264.17(b), 264.171, and 264.172 are complied with.

(h) The requirements of this part apply to owners or operators of all facilities which treat, store, or dispose of hazardous wastes referred to in Part 268.

[45 FR 33221, May 19, 1980, as amended at 45 FR 76075, Nov. 17, 1980; 45 FR 86968, Dec. 31, 1980; 46 FR 27480, May 20, 1981; 47 FR 8306, Feb. 25, 1982; 47 FR 32384, July 26, 1982; 48 FR 2511, Jan. 19, 1983; 48 FR 14294, Apr. 1, 1983; 50 FR 665, Jan. 4, 1985; 50 FR 28746, July 15, 1985; 52 FR 21016, June 4, 1987; 53 FR 27165, July 19, 1988]

§ 264.2 [Reserved]

§ 264.3 Relationship to interim status standards.

A facility owner or operator who has fully complied with the requirements for interim status—as defined in section 3005(e) of RCRA and regulations under § 270.70 of this chapter—must comply with the regulations specified in Part 265 of this chapter in lieu of the regulations in this part, until final administrative disposition of his permit application is made.

[*Comment:* As stated in section 3005(a) of RCRA, after the effective date of regulations under that section, i.e., Parts 270 and 124 of this chapter, the treatment, storage, or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility which meets certain conditions until final administrative disposition of the owner's or operator's permit application is made.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to section 7003 of RCRA.

Subpart B—General Facility Standards

§ 264.10 Applicability.

(a) The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as provided in § 264.1 and in paragraph (b) of this section.

(b) Section 264.18(b) applies only to facilities subject to regulation under Subparts I through O and Subpart X of this part.

[46 FR 2848, Jan. 12, 1981, as amended at 52 FR 46963, Dec. 10, 1987]

§ 264.11 Identification number.

Every facility owner or operator must apply to EPA for an EPA identification number in accordance with the EPA notification procedures (45 FR 12746).

(Approved by the Office of Management and Budget under control number 2050-0028)

[45 FR 33221, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.12 Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this part and Part 270 of this chapter.

[*Comment:* An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.]

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.13 General waste analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of this part and Part 268 of this chapter or with the conditions of a permit issued under Part 270 and Part 124 of this chapter.

(2) The analysis may include data developed under Part 261 of this chapter, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

[*Comment:* For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by paragraph (a)(1) of this section. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

(3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(ii) For off-site facilities, when the results of the inspection required in paragraph (a)(4) of this section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a) of this section. He must keep this plan at the facility. At a minimum, the plan must specify:

(1) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with paragraph (a) of this section);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Appendix I of Part 261 of this chapter; or

(ii) An equivalent sampling method.

[*Comment:* See § 260.21 of this chapter for related discussion.]

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 264.17, 264.314, 264.341 and 268.7 of this chapter.

(7) For surface impoundments exempted from land disposal restrictions under § 268.4(a), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and,

(iii) The annual removal of residues which are not delisted under § 260.22 of this chapter or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of Part 268, Subpart D; or

(B) Where no treatment standards have been established;

(*1*) Such residues are prohibited from land disposal under § 268.32 or RCRA section 3004(d); or

(*2*) Such residues are prohibited from land disposal under § 268.33(f).

(c) For off-site facilities, the waste analysis plan required in paragraph (b) of this section must also specify the procedures which will be used to in-spect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

[*Comment:* Part 270 of this chapter requires that the waste analysis plan be submitted with Part B of the permit application.]

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 50 FR 4514, Jan. 31, 1985; 51 FR 40637, Nov. 7, 1986; 52 FR 21016, June 4, 1987; 52 FR 25787, July 8, 1987; 53 FR 31211, Aug. 17, 1988]

§ 264.14 Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, *unless* he can demonstrate to the Regional Administrator that:

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this part.

[*Comment:* Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

(b) Unless the owner or operator has made a successful demonstration under paragraphs (a)(1) and (2) of this section, a facility must have:

(1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

[*Comment:* The requirements of paragraph (b) of this section are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of paragraph (b)(1) or (2) of this section.]

(c) Unless the owner or operator has made a successful demonstration under paragraphs (a)(1) and (2) of this section, a sign with the legend, "Danger—Unauthorized Personnel Keep Out", must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

[*Comment:* See § 264.117(b) for discussion of security requirements at disposal facilities during the post-closure care period.]

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 48 FR 14294, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.15 General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to—(1) release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He must keep this schedule at the facility.

(3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction of any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in §§ 264.174, 264.194, 264.226, 264.253, 264.254, 264.303, 264.347, and 264.602, where applicable.

[*Comment:* Part 270 of this chapter requires the inspection schedule to be submitted with Part B of the permit application. EPA will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, EPA may modify or amend the schedule as may be necessary.]

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 47 FR 32350, July 26, 1982; 48 FR 14294, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985; 51 FR 25472, July 14, 1986; 52 FR 46963, Dec. 10, 1987]

§ 264.16 Personnel training.

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this section.

[*Comment:* Part 270 of this chapter requires that owners and operators submit with Part B of the RCRA permit application, an outline of the training program used (or to be used) at the facility and a brief description of how the training program is designed to meet actual job tasks.]

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 48 FR 14294, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.17 General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this part, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactons which:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility;

(5) Through other like means threaten human health or the environment.

(c) When required to comply with paragraph (a) or (b) of this section, the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in § 264.13), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(Approved by the Office of Management and Budget under control number 2050-0012)

[46 FR 2848, Jan. 12, 1981, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.18 Location standards.

(a) *Seismic considerations.* (1) Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time.

(2) As used in paragraph (a)(1) of this section:

(i) "Fault" means a fracture along which rocks on one side have been displaced with respect to those on the other side.

(ii) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(iii) "Holocene" means the most recent epoch of the Quarternary period, extending from the end of the Pleistocene to the present.

[*Comment:* Procedures for demonstrating compliance with this standard in Part B of the permit application are specified in § 270.14(b)(11). Facilities which are located in political jurisdictions other than those listed in Appendix VI of this part, are assumed to be in compliance with this requirement.]

(b) *Floodplains.* (1) A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout or any hazardous waste by a 100-year flood, *unless* the owner or operator can demonstrate to the Regional Administrator's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

(ii) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(A) The volume and physical and chemical characteristics of the waste in the facility;

(B) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(C) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(D) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

[*Comment:* The location where wastes are moved must be a facility which is either permitted by EPA under Part 270 of this chapter, authorized to manage hazardous waste by a State with a hazardous waste management program authorized under Part 271 of this chapter, or in interim status under Parts 270 and 265 of this chapter.]

(2) As used in paragraph (b)(1) of this section:

(i) "100-year floodplain" means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(ii) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) "100-year flood" means a flood that has a one percent chance of being equalled or exeeded in any given year.

[*Comment:* (1) Requirements pertaining to other Federal laws which affect the location and permitting of facilities are found in § 270.3 of this chapter. For details relative to these laws, see EPA's manual for SEA (special environmental area) requirements for hazardous waste facility permits. Through EPA is responsible for complying with these requirements, applicants are advised to consider them in planning the location of a facility to help prevent subsequent project delays.]

(c) *Salt dome formations, salt bed formations, underground mines and caves.* The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New Mexico.

(Approved by the Office of Management and Budget under control numbers 2050-0010 and 2050-0012)

[46 FR 2848, Jan. 12, 1981, as amended at 47 FR 32350, July 26, 1982; 48 FR 14294, Apr. 1, 1983; 48 FR 30115, June 30, 1983; 50 FR 4514, Jan. 31, 1985; 50 FR 28746, July 15, 1985; 52 FR 46963, Dec. 10, 1987]

Subpart C—Preparedness and Prevention

§ 264.30 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 264.1 provides otherwise.

§ 264.31 Design and operation of facility.

Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

§ 264.32 Required equipment.

All facilities must be equipped with the following, *unless* it can be demonstrated to the Regional Administrator that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

[*Comment:* Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.33 Testing and maintenance of equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

§ 264.34 Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, *unless* the Regional Administrator has ruled that such a device is not required under § 264.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, *unless* the Regional Administrator has ruled that such a device is not required under § 264.32.

§ 264.35 Required aisle space.

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, *unless* it can be demonstrated to the Regional Administrator that aisle space is not needed for any of these purposes.

[*Comment:* Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.36 [Reserved]

§ 264.37 Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

Subpart D—Contingency Plan and Emergency Procedures

§ 264.50 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 264.1 provides otherwise.

§ 264.51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(Approved by the Office of Management and Budget under control number 2050-0011)

[45 FR 33221, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.52 Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with §§ 264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 of this chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.

(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to § 264.37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see § 264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. *For new facilities,* this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(Approved by the Office of Management and Budget under control number 2050-0011)

[45 FR 33221, May 19, 1980, as amended at 46 FR 27480, May 20, 1981; 50 FR 4514, Jan. 31, 1985]

§ 264.53 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

[*Comment:* The contingency plan must be submitted to the Regional Administrator with Part B of the permit application under Part 270, of this chapter and, after modification or approval, will become a condition of any permit issued.]

(Approved by the Office of Management and Budget under control number 2050-0011)

[45 FR 33221, May 19, 1980, as amended at 48 FR 30115, June 30, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.54 Amendment of contingency plan.

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) The facility permit is revised;

(b) The plan fails in an emergency;

(c) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

(Approved by the Office of Management and Budget under control number 2050-0011)

[45 FR 33221, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985; 53 FR 37935, Sept. 28, 1988]

§ 264.55 Emergency coordinator.

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

[*Comment:* The emergency coordinator's responsibilities are more fully spelled out in § 264.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.]

§ 264.56 Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under Part 1510 of this title) or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

[*Comment:* Unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 264 of this chapter.]

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

Subpart E—Manifest System, Recordkeeping, and Reporting

§ 264.70 Applicability.

The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 264.1 provides otherwise. Sections 264.71, 264.72, and 264.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources. Section 264.73(b) only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

[50 FR 28746, July 15, 1985]

§ 264.71 Use of manifest system.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest (as defined in § 264.72(a)) on each copy of the manifest;

[*Comment:* The Agency does not intend that the owner or operator of a facility whose procedures under § 264.13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Section 264.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in § 264.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper.

[*Comment:* The Agency does not intend that the owner or operator of a facility whose procedures under § 264.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 264.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

[*Comment:* Section 262.23(c) of this chapter requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).]

(5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of Part 262 of this chapter.

[*Comment:* The provisions of § 262.34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.]

[45 FR 33221, May 19, 1980, as amended at 45 FR 86970, 86974, Dec. 31, 1980]

§ 264.72 Manifest discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

(1) For bulk waste, variations greater than 10 percent in weight, and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.73 Operating record.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

[*Comment:* See § 264.119 for related requirements.]

(3) Records and results of waste analyses performed as specified in §§ 264.13, 264.17, 264.314, 264,341, 268.4(a), and 268.7 of this chapter.

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in § 264.56(j);

(5) Records and results of inspections as required by § 264.15(d) (except these data need be kept only three years);

(6) Monitoring, testing or analytical data, and corrective action where required by Subpart F and §§ 264.226, 264.253, 264.254, 264.276, 264.278, 264.280, 264.303, 264.309, 264.347, and 264.602;

(7) For off-site facilities, notices to generators as specified in § 264.12(b); and

(8) All closure cost estimates under § 264.142, and, for disposal facilities, all post-closure cost estimates under § 264.144.

(9) A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to

be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

(10) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to § 268.5, a petition pursuant to § 268.6, or a certification under § 268.8, and the applicable notice required by a generator under § 268.7(a);

(11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8;

(12) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8;

(13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under § 268.7 and § 268.8, whichever is applicable; and

(14) For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under § 268.7, except for the manifest number, and the certification and demonstration if applicable, required under § 268.8, whichever is applicable.

(15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8; and

(16) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8.

(Approved by the Office of Management and Budget under control numbers 2050-0012, 2050-0013 and 2040-0042. The reporting and recordkeeping requirements contained in paragraph (b)(9) were approved by the Office of Management and Budget under control number 2050-0037)

[45 FR 33221, May 19, 1980, as amended at 46 FR 2849, Jan. 12, 1981; 46 FR 7678, Jan. 23, 1981; 50 FR 4514, Jan. 31, 1985; 50 FR 18374, Apr. 30, 1985; 50 FR 28746, July 15, 1985; 51 FR 40637, Nov. 7, 1986; 52 FR 21016, June 4, 1987; 52 FR 46963, Dec. 10, 1987; 53 FR 31211, Aug. 17, 1988; 54 FR 26647, June 23, 1989]

§ 264.74 Availability, retention, and disposition of records.

(a) All records, including plans, required under this part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator.

(b) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator.

(c) A copy of records of waste disposal locations and quantities under § 264.73(b)(2) must be submitted to the Regional Administrator and local land authority upon closure of the facility.

§ 264.75 Biennial report.

The owner or operator must prepare and submit a single copy of a biennial report to the Regional Administrator by March 1 of each even numbered year. The biennial report must be submitted on EPA form 8700-13B. The report must cover facility activities during the previous calendar year and must include:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) [Reserved]

(g) The most recent closure cost estimate under § 264.142, and, for disposal facilities, the most recent post-closure cost estimate under § 264.144; and

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

(j) The certification signed by the owner or operator of the facility or his authorized representative.

(Approved by the Office of Management and Budget under control number 2050-0024)

[45 FR 33221, May 19, 1980, as amended at 46 FR 2849, Jan. 12, 1981; 48 FR 3982, Jan. 28, 1983; 50 FR 4514, Jan. 31, 1985; 51 FR 28556, Aug. 8, 1986]

§ 264.76 Unmanifested waste report.

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in § 263.20(e)(2) of this chapter, and if the waste is not excluded from the manifest requirement by § 261.5 of this chapter, then the owner or operator must prepare and submit a single copy of a report to the Regional Administrator within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated 'Unmanifested Waste Report' and include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste and facility received;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

[*Comment:* Small quantities of hazardous waste are excluded from regulation under this part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the Agency suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the Agency suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.]

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33221, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.77 Additional reports.

In addition to submitting the biennial reports and unmanifested waste reports described in §§ 264.75 and 264.76, the owner or operator must also report to the Regional Administrator:

(a) Releases, fires, and explosions as specified in § 264.56(j);

(b) Facility closures specified in §264.115; and

(c) As otherwise required by Subparts F and K through N.

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32350, July 26, 1982; 48 FR 3982, Jan. 28, 1983]

Subpart F—Releases From Solid Waste Management Units

SOURCE: 47 FR 32350, July 26, 1982, unless otherwise noted.

§ 264.90 Applicability.

(a)(1) Except as provided in paragraph (b) of this section, the regulations in this subpart apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in paragraph (a)(2) of this section for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

(2) All solid waste management units must comply with the requirements in § 264.101. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of §§ 264.91 through 264.100 in lieu of § 264.101 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The finanical responsibility requirements of § 264.101 apply to regulated units.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this subpart if:

(1) The owner or operator is exempted under § 264.1; or

(2) He operates a unit which the Regional Administrator finds:

(i) Is an engineered structure,

(ii) Does not receive or contain liquid waste or waste containing free liquids,

(iii) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off,

(iv) Has both inner and outer layers of containment enclosing the waste,

(v) Has a leak detection system built into each containment layer,

(vi) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods, and

(vii) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the the post-closure care period.

(3) The Regional Administrator finds, pursuant to § 264.280(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of § 264.278 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under this paragraph can only relieve an owner or operator of responsibility to meet the requirements of this subpart during the post-closure care period; or

(4) The Regional Administrator finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the port-closure care period specified under § 264.117. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration.

(5) He designs and operates a pile in compliance with § 264.250(c).

(c) The regulations under this subpart apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this subpart:

(1) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

(2) Apply during the post-closure care period under § 264.117 if the owner or operator is conducting a detection monitoring program under § 264.98; or

(3) Apply during the compliance period under § 264.96 if the owner or operator is conducting a compliance monitoring program under § 264.99 or a corrective action program under § 264.100.

(d) Regulations in this subpart may apply to miscellaneous units when necessary to comply with §§ 264.601 through 264.603.

[47 FR 32350, July 26, 1982, as amended at 50 FR 28746, July 15, 1985; 52 FR 46963, Dec. 10, 1987]

§ 264.91 Required programs.

(a) Owners and operators subject to this subpart must conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under § 264.93 from a regulated unit are detected at a compliance point under § 264.95, the owner or operator must institute a compliance monitoring program under § 264.99. Detected is defined as statistically significant evidence of contamination as described in § 264.98(f);

(2) Whenever the ground-water protection standard under § 264.92 is exceeded, the owner or operator must institute a corrective action program under § 264.100. Exceeded is defined as statistically significant evidence of increased contamination as described in § 264.99(d);

(3) Whenever hazardous constituents under § 264.93 from a regulated unit exceed concentration limits under § 264.94 in ground water between the compliance point under § 264.95 and the downgradient facility property boundary, the owner or operator must institute a corrective action program under § 264.100; or

(4) In all other cases, the owner or operator must institute a detection monitoring program under § 264.98.

(b) The Regional Administrator will specify in the facility permit the specific elements of the monitoring and response program. The Regional Administrator may include one or more of the programs identified in paragraph (a) of this section in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Regional Administrator will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

[47 FR 32350, July 26, 1982, as amended at 53 FR 39728, Oct. 11, 1988]

§ 264.92 Ground-water protection standard.

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under § 264.93 detected in the ground water from a regulated unit do not exceed the concentration limits under § 264.94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under § 264.95 during the compliance period under § 264.96. The Regional Administrator will establish this ground-water protection standard in the facility permit when hazardous constituents have been detected in the ground water.

[53 FR 39728, Oct. 11, 1988]

§ 264.93 Hazardous constituents.

(a) The Regional Administrator will specify in the facility permit the hazardous constituents to which the ground-water protection standard of § 264.92 applies. Hazardous constituents are constituents identified in Appendix VIII of Part 261 of this chapter that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Regional Administrator has excluded them under paragraph (b) of this section.

(b) The Regional Administrator will exclude an Appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Regional Administrator will consider the following:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) of this section about the use of ground water in the area around the facility, the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under § 144.8 of this chapter.

[47 FR 32350, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.94 Concentration limits.

(a) The Regional Administrator will specify in the facility permit concentration limits in the ground water for hazardous constituents established under § 264.93. The concentration of a hazardous constituent:

(1) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(2) For any of the constituents listed in Table 1, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

TABLE 1—MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUND-WATER PROTECTION

Constituent	Maximum concentration [1]
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane)	0.1
Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67–69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

[1] Milligrams per liter.

(3) Must not exceed an alternate limit established by the Regional Administrator under paragraph (b) of this section.

(b) The Regional Administrator will establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Regional Administrator will consider the following factors:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) of this section about the use of ground water in the area around the facility the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under § 144.8 of this chapter.

[47 FR 32350, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.95 Point of compliance.

(a) The Regional Administrator will specify in the facility permit the point of compliance at which the ground-water protection standard of § 264.92 applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

§ 264.96 Compliance period.

(a) The Regional Administrator will specify in the facility permit the compliance period during which the ground-water protection standard of § 264.92 applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period.)

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of § 264.99.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in paragraph (a) of this section, the compliance period is extended until the owner or operator can demonstrate that the ground-water protection standard of § 264.92 has not been exceeded for a period of three consecutive years.

§ 264.97 General ground-water monitoring requirements.

The owner or operator must comply with the following requirements for any ground-water monitoring program developed to satisfy § 264.98, § 264.99, or § 264.100:

(a) The ground-water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground-water samples from the uppermost aquifer that:

(1) Represent the quality of background water that has not been affected by leakage from a regulated unit;

(i) A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(B) Sampling at other wells will provide an indication of background ground-water quality that is representative or more representative than that provided by the upgradient wells; and

(2) Represent the quality of ground water passing the point of compliance.

(3) Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate ground-water monitoring systems are not required for each regulated unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground-water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water.

(d) The ground-water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground-water quality below the waste management area. At a minimum the program must include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(e) The ground-water monitoring program must include sampling and analytical methods that are appropriate for ground-water sampling and that accurately measure hazardous constituents in ground-water samples.

(f) The ground-water monitoring program must include a determination of the ground-water surface elevation each time ground water is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the Regional Administrator. This sampling procedure shall be:

(1) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants, or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the Regional Administrator.

(h) The owner or operator will specify one of the following statistical methods to be used in evaluating ground-water monitoring data for each hazardous constituent which, upon approval by the Regional Administrator, will be specified in the unit permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with § 264.97(i)(5), the pql must be proposed by the owner or operator and approved by the Regional Administrator. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in paragraph (i) of this section.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the Regional Administrator.

(i) Any statistical method chosen under § 264.97(h) for specification in the unit permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate ground-water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

(3) If a control chart approach is used to evaluate ground-water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Regional Administrator if he or she finds

it to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the Regional Administrator if he or she finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Regional Administrator under § 264.97(h) that is used in the statistical method shall be the lowest concentration level tha can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Ground-water monitoring data collected in accordance with paragraph (g) of this section including actual levels of constituents must be maintained in the facility operating record. The Regional Administrator will specify in the permit when the data must be submitted for review.

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[47 FR 32350, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 53 FR 39728, Oct. 11, 1988]

§ 264.98 Detection monitoring program.

An owner or operator required to establish a detection monitoring program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Regional Administrator will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(1) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(2) The mobility, stability, and persistance of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(3) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground-water background.

(b) The owner or operator must install a ground-water monitoring system at the compliance point as specified under § 264.95. The ground-water monitoring system must comply with § 264.97(a)(2), (b), and (c).

(c) The owner or operator must conduct a ground-water monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to paragraph (a) of this section in accordance with § 264.97(g). The owner or operator must maintain a record of ground-water analytical data as measured and in a form necessary for the determination of statistical significance under § 264.97(h).

(d) The Regional Administrator will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under paragraph (a) of this section in accordance with § 264.97(g). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during detection monitoring.

(e) The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit pursuant to paragraph (a) of this section at a frequency specified under paragraph (d) of this section.

(1) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under § 264.97(h). These method(s) must compare data collected at the compliance point(s) to the background ground-water quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The Regional Administrator will specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(g) If the owner or operator determines pursuant to paragraph (f) of this section that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to paragraph (a) of this section at any monitoring well at the compliance point, he or she must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

(2) Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of Appendix IX of Part 264 are present, and if so, in what concentration.

(3) For any Appendix IX compounds found in the analysis pursuant to paragraph (g)(2) of this section, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to paragraph (g)(2) of this section, the hazardous constituents found during this initial Appendix IX analysis will form the basis for compliance monitoring.

(4) Within 90 days, submit to the Regional Administrator an application for a permit modification to establish a compliance monitoring program meeting the requirements of § 264.99. The application must include the following information:

(i) An identification of the concentration or any Appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

(ii) Any proposed changes to the ground-water monitoring system at the facility necessary to meet the requirements of § 264.99;

(iii) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of § 264.99;

(iv) For each hazardous constituent detected at the compliance point, a proposed concentration limit under § 264.94(a) (1) or (2), or a notice of intent to seek an alternate concentration limit under § 264.94(b); and

(5) Within 180 days, submit to the Regional Administrator:

(i) All data necessary to justify an alternate concentration limit sought under § 264.94(b); and

(ii) An engineering feasibility plan for a corrective action program necessary to meet the requirement of § 264.100, unless:

(A) All hazardous constituents identified under paragraph (g)(2) of this section are listed in Table 1 of § 264.94 and their concentrations do not exceed the respective values given in that Table; or

(B) The owner or operator has sought an alternate concentration limit under § 264.94(b) for every hazardous constituent identified under paragraph (g)(2) of this section.

(6) If the owner or operator determines, pursuant to paragraph (f) of this section, that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to paragraph (a) of this section at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. The owner operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under paragraph (g)(4) of this section; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in paragraph (g)(4) of this section unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this paragraph, the owner or operator must:

(i) Notify the Regional Administrator in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under this paragraph;

(ii) Within 90 days, submit a report to the Regional Administrator which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(iii) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(iv) Continue to monitor in accordance with the detection monitoring program established under this section.

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this section, he or she must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

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[47 FR 32350, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 52 FR 25946, July 9, 1987; 53 FR 39729, Oct. 11, 1988]

§ 264.99 Compliance monitoring program.

An owner or operator required to establish a compliance monitoring program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground-water protection standard under § 264.92. The Regional Administrator will specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under § 264.93;

(2) Concentration limits under § 264.94 for each of those hazardous constituents;

(3) The compliance point under § 264.95; and

(4) The compliance period under § 264.96.

(b) The owner or operator must install a ground-water monitoring system at the compliance point as specified under § 264.95. The ground-water monitoring system must comply with § 264.97(a)(2), (b), and (c).

(c) The Regional Administrator will specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with § 264.97 (g) and (h).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with § 264.97(g).

(2) The owner or operator must record ground-water analytical data as measured and in form necessary for the determination of statistical significance under § 264.97(h) for the compliance period of the facility.

(d) The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to paragraph (a) of this section, at a frequency specified under paragraph (f) under this section.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under § 264.97(h). The methods(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with § 264.94.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Regional Administrator will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(e) The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The Regional Administrator will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with § 264.97(g). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during the compliance period of the facility.

(g) The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix IX of Part 264 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in § 264.98(f). If the owner or operator finds Appendix IX constituents in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the Regional Administrator within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the Regional Administrator within seven days after completion of the intiial analysis and add them to the monitoring list.

(h) If the owner or operator determines pursuant to paragraph (d) of this section that any concentration limits under § 264.94 are being exceeded at any monitoring well at the point of compliance he or she must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

(2) Submit to the Regional Administrator an application for a permit modification to establish a corrective action program meeting the requirements of § 264.100 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Regional Administrator under § 264.98(h)(5). The application must at a minimum include the following information:

(i) A detailed description of corrective actions that will achieve compliance with the ground-water protection standard specified in the permit under paragraph (a) of this section; and

(ii) A plan for a ground-water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground-water monitoring program may be based on a compliance monitoring program developed to meet the requirements of this section.

(i) If the owner or operator determines, pursuant to paragraph (d) of this section, that the ground-water concentration limits under this section are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under this paragraph, the owner or operator must:

(1) Notify the Regional Administrator in writing within seven days that he intends to make a demonstration under this paragraph;

(2) Within 90 days, submit a report to the Regional Administrator which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(4) Continue to monitor in accord with the compliance monitoring program established under this section.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

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[47 FR 32350, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 52 FR 25946, July 9, 1987; 53 FR 39730, Oct. 11, 1988]

§ 264.100 Corrective action program.

An owner or operator required to establish a corrective action program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the ground-water protection standard under § 264.92. The Regional Administrator will specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under § 264.93;

(2) Concentration limits under § 264.94 for each of those hazardous constituents;

(3) The compliance point under § 264.95; and

(4) The compliance period under § 264.96.

(b) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the ground-water protection standard is exceeded. The Regional Administrator will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of § 264.99(i)(2).

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a ground-water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under § 264.99 and must be as effective as that program in determining compliance with the ground-water protection standard under § 264.92 and in determining the success of a corrective action program under paragraph (e) of this section, where appropriate.

(e) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under § 264.93 that exceed concentration limits under § 264.94 in groundwater:

(1) Between the compliance point under § 264.95 and the downgradient property boundary; and

(2) Beyond the facility boundary, where necessary to protect human health and the environment, unless

the owner or operator demonstrates to the satisfaction of the Regional Administrator that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(3) Corrective action measures under this paragraph must be initiated and completed within a reasonable period of time considering the extent of contamination.

(4) Corrective action measures under this paragraph may be terminated once the concentration of hazardous constituents under § 264.93 is reduced to levels below their respective concentration limits under § 264.94.

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the ground-water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the ground-water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the ground-water monitoring program under paragraph (d) of this section, that the ground-water protection standard of § 264.92 has not been exceeded for a period of three consecutive years.

(g) The owner or operator must report in writing to the Regional Administrator on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

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[47 FR 32350, July 26, 1985, as amended at 50 FR 4514, Jan. 31, 1985; 52 FR 45798, Dec. 1, 1987]

§ 264.101 Corrective action for solid waste management units.

(a) The owner or operator of a facility seeking a permit for the treatment, storage or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action will be specified in the permit. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

(c) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Regional Administrator that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

[50 FR 28747, July 15, 1985, as amended at 52 FR 45798, Dec. 1, 1987]

Subpart G—Closure and Post-Closure

SOURCE: 51 FR 16444, May 2, 1986, unless otherwise noted.

§ 264.110 Applicability.

Except as § 264.1 provides otherwise:

(a) Sections 264.111 through 264.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 264.116 through 264.120 (which concern post-closure care) apply to the owners and operators of:

(1) All hazardous waste disposal facilities; and

(2) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in § 264.228 or § 264.258.

(3) Tank systems that are required under § 264.197 to meet the requirements for landfills.

[51 FR 16444, May 2, 1986, as amended at 51 FR 25472, July 14, 1986]

§ 264.111 Closure performance standard.

The owner or operator must close the facility in a manner that:

(a) Minimizes the need for further maintenance; and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Complies with the closure requirements of this subpart, including, but not limited to, the requirements of §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, and 264.601 through 264.603.

[51 FR 16444, May 2, 1986, as amended at 52 FR 46963, Dec. 10, 1987]

§ 264.112 Closure plan; amendment of plan.

(a) *Written plan.* (1) The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by §§ 264.228(c)(1)(i) and 264.258(c)(1)(i) to have contingent closure plans. The plan must be submitted with the permit application, in accordance with § 270.14(b)(13) of this chapter, and approved by the Regional Administrator as part of the permit issuance procedures under Part 124 of this chapter. In accordance with § 270.32 of this chapter, the approved closure plan will become a condition of any RCRA permit.

(2) The Director's approval of the plan must ensure that the approved closure plan is consistent with §§ 264.111 through 264.115 and the applicable requirements of §§ 264.90 *et seq.*, 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, and 264.601. Until final clsoure is completed and certified in accordance with § 264.115, a copy of the approved plan and all approved revisions must be furnished to the Director upon request, including request by mail.

(b) *Content of plan.* The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

(1) A description of how each hazardous waste management unit at the facility will be closed in accordance with § 264.111;

(2) A description of how final closure of the facility will be conducted in accordance with § 264.111. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, pro-

cedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.)

(7) For facilities that use trust funds to establish financial assurance under § 264.143 or § 264.145 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

(c) *Amendment of plan.* The owner or operator must submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in Parts 124 and 270. The written notification or request must include a copy of the amended closure plan for review or approval by the Regional Administrator.

(1) The owner or operator may submit a written notification or request to the Regional Administrator for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

(2) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(3) The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under § 264.228(c)(1)(i) or § 264.258(c)(1)(i), must submit an amended closure plan to the Regional Administrator no later than 60 days from the date that the owner or operator or Regional Administrator determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of § 264.310, or no later than 30 days from that date if the determination is made during partial or final closure. The Regional Administrator will approve, disapprove, or modify this amended plan in accordance with the procedures in Parts 124 and 270. In accordance with § 270.32 of this chapter, the approved closure plan will become a condition of any RCRA permit issued.

(4) The Regional Administrator may request modifications to the plan under the conditions described in § 264.112(c)(2). The owner or operator must submit the modified plan within 60 days of the Regional Administrator's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Regional Administrator will be approved

in accordance with the procedures in Parts 124 and 270.

(d) *Notification of partial closure and final closure.* (1) The owner or operator must notify the Regional Administrator in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or operator must notify the Regional Administrator in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed.

(2) The date when he "expects to begin closure" must be either no later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the Regional Administrator that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Regional Administrator may approve an extension to this one-year limit.

(3) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under section 3008 of RCRA, to cease receiving hazardous wastes or to close, then the requirements of this paragraph do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in § 264.113.

(e) *Removal of wastes and decontamination or dismantling of equipment.* Nothing in this section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

[51 FR 16444, May 2, 1986, as amended at 52 FR 46963, Dec. 10, 1987; 53 FR 37935, Sept. 28, 1988]

§ 264.113 Closure; time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes at a hazardous waste management unit or facility, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Regional Administrator may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

(B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes at the hazardous waste management unit or facility. The Regional Administrator may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

(B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

(c) The demonstrations referred to in § 264.113(a) and (b) must be made as follows: (1) The demonstrations in paragraph (a) must be made at least 30 days prior to the expiration of the 90-day period in paragraph (a); and (2) the demonstration in paragraph (b) must be made at least 30 days prior to the expiration of the 180-day period in paragraph (b) of this section.

§ 264.114 Disposal or decontamination of equipment, structures and soils.

During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in §§ 264.197, 264.228, 264.258, 264.280 or § 264.310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of Part 262 of this chapter.

[51 FR 16444, May 2, 1986, as amended at 52 FR 46963, Dec. 10, 1987; 53 FR 34086, Sept. 2, 1988]

§ 264.115 Certification of closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator must submit to the Regional Administrator, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Regional Administrator upon request until he releases the owner or operator from the financial assurance requirements for closure under § 264.143(i).

§ 264.116 Survey plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Regional Administrator, a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Subpart G regulations.

§ 264.117 Post-closure care and use of property.

(a)(1) Post-closure care for each hazardous waste management unit subject to the requirements of §§ 264.117 through 264.120 must begin after completion of closure of the unit and continue for 30 years after that date and must consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, N, and X of this part; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X of this part.

(2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the Regional Administrator may, in accordance with the permit modification procedures in Parts 124 and 270:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground-water monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility if he finds that the extended period is necessary to protect human health and the environment (e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(b) The Regional Administrator may require, at partial and final closure, continuation of any of the security requirements of § 264.14 during part or all of the post-closure period when:

(1) Hazardous wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Regional Administrator finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in § 264.118.

[51 FR 16444, May 2, 1986, as amended at 52 FR 46963, Dec. 10, 1987]

§ 264.118 Post-closure plan; amendment of plan.

(a) *Written Plan.* The owner or operator of a hazardous waste disposal unit must have a written post-closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by §§ 264.228(c)(1)(ii) and 264.258(c)(1)(ii) to have contingent post-closure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure plans under §§ 264.228(c)(1)(ii) and 264.258(c)(1)(ii) must submit a post-closure plan to the Regional Administrator within 90 days from the date that the owner or operator or Regional administrator determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of §§ 264.117 through 264.120. The plan must be submitted with the permit application, in accordance with § 270.14(b)(13) of this chapter, and approved by the Regional Administrator as part of the permit issuance procedures under Part 124 of this chapter. In accordance with § 270.32 of this chapter, the approved post-closure plan will become a condition of any RCRA permit issued.

(b) For each hazardous waste management unit subject to the requirements of this section, the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Subparts F, K, L, M, N,

and X of this part during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X of this part; and

(ii) The function of the monitoring equipment in accordance with the requirements of Subparts, F, K, L, M, N, and X of this part; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(c) Until final closure of the facility, a copy of the approved post-closure plan must be furnished to the Regional Administrator upon request, including request by mail. After final closure has been certified, the person or office specified in § 264.188(b)(3) must keep the approved post-closure plan during the remainder of the post-closure period.

(d) *Amendment of plan.* The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements in Parts 124 and 270. The written notification or request must include a copy of the amended post-closure plan for review or approval by the Regional Administrator.

(1) The owner or operator may submit a written notification or request to the Regional Administrator for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.

(2) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan whenever:

(i) Changes in operating plans or facility design affect the approved post-closure plan, or

(ii) There is a change in the expected year of final closure, if applicable, or

(iii) Events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan.

(3) The owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure plan under §§ 264.228(c)(1)(ii) and 264.258(c)(1)(ii) must submit a post-closure plan to the Regional Administrator no later than 90 days after the date that the owner or operator or Regional Administrator determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of § 264.310. The Regional Administrator will approve, disapprove or modify this plan in accordance with the procedures in Parts 124 and 270. In accordance with § 270.32 of this chapter, the approved post-closure plan will become a permit condition.

(4) The Regional Administrator may request modifications to the plan under the conditions described in § 264.118(d)(2). The owner or operator must submit the modified plan no later than 60 days after the Regional Administrator's request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure plan. Any modifications requested by the Regional Administrator will be approved, disapproved, or modified in accordance with the procedures in Parts 124 and 270.

[51 FR 16444, May 2, 1986, as amended at 52 FR 46964, Dec. 10, 1987; 53 FR 37935, Sept. 28,1988]

§ 264.119 Post-closure notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the

Regional Administrator a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:

(1) Record, in accordance with State law, a notation on the deed to the facility property—or on some other instrument which is normally examined during title search—that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under 40 CFR Subpart G regulations; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by §§ 264.116 and 264.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Regional Administrator; and

(2) Submit a certification, signed by the owner or operator, that he has recorded the notation specified in paragraph (b)(1) of this section, including a copy of the document in which the notation has been placed, to the Regional Administrator.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in Parts 124 and 270. The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of § 264.117(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of this chapter. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Regional Administrator approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

§ 264.120 Certification of completion of post-closure care.

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Regional Administrator, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Regional Administrator upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under § 264.145(i).

Subpart H—Financial Requirements

SOURCE: 47 FR 15047, Apr. 7, 1982, unless otherwise noted.

§ 264.140 Applicability.

(a) The requirements of §§ 264.142, 264.143, and 264.147 through 264.151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this section or in § 264.1.

(b) The requirements of §§ 264.144 and 264.145 apply only to owners and operators of:

(1) Disposal facilities, and

(2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in §§ 264.228 and 264.258.

(3) Tank systems that are required under § 264.197 to meet the requirements for landfills.

(c) States and the Federal government are exempt from the requirements of this subpart.

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982; 51 FR 25472, July 14, 1986]

§ 264.141 Definitions of terms as used in this subpart.

(a) "*Closure plan*" means the plan for closure prepared in accordance with the requirements of § 264.112.

(b) "*Current closure cost estimate*" means the most recent of the estimates prepared in accordance with § 264.142 (a), (b), and (c).

(c) "*Current post-closure cost estimate*" means the most recent of the estimates prepared in accordance with § 264.144 (a), (b), and (c).

(d) "*Parent corporation*" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) "*Post-closure plan*" means the plan for post-closure care prepared in accordance with the requirements of §§ 264.117 through 264.120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"*Assets*" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"*Current assets*" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"*Current liabilities*" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"*Current plugging and abandonment cost estimate*" means the most recent of the estimates prepared in accordance with § 144.62(a), (b), and (c) of this title.

"*Independently audited*" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"*Liabilities*" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"*Net working capital*" means current assets minus current liabilities.

"*Net worth*" means total assets minus total liabilities and is equivalent to owner's equity.

"*Tangible net worth*" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms "*bodily injury*" and "*property damage*" shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Agency intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"*Accidental occurrence*" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"*Legal defense costs*" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"*Nonsudden accidental occurrence*" means an occurrence which takes place over time and involves continuous or repeated exposure.

"*Sudden accidental occurrence*" means an occurrence which is not continuous or repeated in nature.

(h) "*Substantial business relationship*" means the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the applicable EPA Regional Administrator.

[47 FR 16554, Apr. 16, 1982, as amended at 51 FR 16447, May 2, 1986; 53 FR 33950, Sept. 1, 1988]

§ 264.142 Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 264.111 through 264.115 and applicable closure requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, and 264.601 through 264.603.

(1) The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see § 264.112(b)); and

(2) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in § 264.141(d).) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 264.143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Regional Administrator as specified in § 264.143(f)(3). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its *Survey of Current Business*, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by mutliplying the lastest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the Regional Administrator has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in § 264.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with § 264.142 (a) and (c) and, when this estimate has been adjusted in accordance with § 264.142(b), the latest adjusted closure cost estimate.

(Approved by the Office of Management and Budget under control number 2050-0036)

[47 FR 15047, Apr. 7, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 51 FR 16447, May 2, 1986; 52 FR 46964, Dec. 10, 1987]

§ 264.143 Financial assurance for closure.

An owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in paragraphs (a) through (f) of this section.

(a) *Closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund must be made as follows:

(i) For a new facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Regional Administrator before this initial receipt of hazardous waste. The first payment must be at least equal to the current closure cost estimate, except as provided in § 264.143(g), divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in § 265.143(a) of this chapter, and the value of that trust fund is less than the current closure cost estimate when a permit is awarded for the facility, the amount of the current closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in paragraph (a)(3) of this section. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Part 265 of this chapter. The amount of each payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this section or in § 265.143 of this chapter, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this paragraph and § 265.143(a) of this chapter, as applicable.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with § 264.143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Regional Administrator does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(11) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(b) *Surety bond guaranteeing payment into a closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in § 264.143(g).

(7) Whenever the current closure cost estimate increases to an amount greater then the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidence by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Surety bond guaranteeing performance of closure.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust must meet the requirements specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

(ii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure as guaranteed by the bond or will deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate.

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may canel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent. The Regional Administrator will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(10) The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(d) *Closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. An owner or operator of a new facility must submit the letter of credit to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in § 264.143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate

following written approval by the Regional Administrator.

(8) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Regional Administrator may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(10) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(e) *Closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. An owner or operator of a new facility must submit the certificate of insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or suplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in § 264.143(g). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Regional Administrator will instruct the insurer to make reimbursements in such amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost of closure over the remaining life of the facility will be signficantly greater than the face amount of the policy, he may with-

hold reimbursements of such amounts as he deems prudent until he determines, in accordance with § 264.143(i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Regional Administrator does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (e)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Adminstrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(10) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(f) *Financial test and corporate guarantee for closure.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (f)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this title).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require reports of

financial condition at any time from the owner or operator in addition to those specified in paragraph (f)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (f)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (8) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 264.143(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

(g) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a), (b), (d), and (e), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for closure of the facility.

(h) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for final closure of the facility, unless the Regional Administrator has reason to believe that final closure has not been in accordance with the approved closure plan. The Regional Administrator shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

[47 FR 15047, Apr. 7, 1982, as amended at 51 FR 16448, May 2, 1986]

§ 264.144 Cost estimate for post-closure care.

(a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under §§ 264.228 and 264.258 to prepare a contingent closure and post-closure plan, must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in §§ 264.117 through 264.120, 264.228, 264.258, 264.280, 264.310, and 264.603.

(1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in § 264.141(d).)

(2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under § 264.117.

(b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 264.145. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Regional Administrator as specified in § 264.145(f)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its *Survey of Current Business* as specified in § 264.145(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the post-closure cost estimate within 30 days after the Regional Administrator has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in § 264.144(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with § 264.144 (a) and (c) and, when this estimate has been adjusted in accordance with § 264.144(b), the latest adjusted post-closure cost estimate.

(Approved by the Office of Management and Budget under control number 2050-0036)

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982; 50 FR 4514, Jan. 31, 1985; 51 FR 16449, May 2, 1986; 52 FR 46964, Dec. 10, 1987]

§ 264.145 Financial assurance for post-closure care.

The owner or operator of a hazardous waste management unit subject to the requirements of § 264.144 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. He must choose from the following options:

(a) *Post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a post-closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

(i) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Regional Administrator before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in § 264.145(g), divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversay date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in § 265.145(a) of this chapter, and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the fund must be paid in over the pay-in period as defined in paragraph (a)(3) of this section. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Part 265 of this chapter. The amount of each payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section or in § 265.145 of this chapter, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this paragraph and § 265.145(a) of this chapter, as applicable.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) During the period of post-closure care, the Regional Administrator may approve a release of funds if the owner or operator demonstrates to the Regional Administrator that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure care activities, the Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the post-closure care expenditures are in accordance with the approved post-clo-

sure plan or otherwise justified. If the Regional Administrator does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(12) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(b) *Surety bond guaranteeing payment into a post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in § 264.145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following

written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Surety bond guaranteeing performance of post-closure care.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

(ii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days of receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with the post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to

the Regional Administrator, or obtain other financial assurance as specified in this section. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may approve a decrease in the penal sum if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(10) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent. The Regional Administrator will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(d) *Post-closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. An owner or operator of a new facility must submit the letter of credit to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120

days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in a amount at least equal to the current post-closure cost estimate, except as provided in § 264.145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Regional Administrator may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(11) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(e) *Post-closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining post-closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. An owner or operator of a new facility must submit the certificate of insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in § 264.145(g). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will

not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure care activities, the Regional Administrator will instruct the insurer to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Regional Administrator does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (e)(11) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure

cost estimate following written approval by the Regional Administrator.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(f) *Financial test and corporate guarantee for post-closure care.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (f)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this title).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (f)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Regional Administrator may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Regional Administrator that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in paragraph (f)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(11) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (9) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 264.145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(g) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a), (b), (d), and (e), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for post-closure care of the facility.

(h) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Regional Administrator will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Regional Administrator has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Regional Administrator shall provide the owner or operator with a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

[47 FR 15047, Apr. 7, 1982, as amended at 51 FR 16449, May 2, 1986]

§ 264.146 Use of a mechanism for financial assurance of both closure and post-closure care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both §§ 264.143 and 264.145. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

§ 264.147 Liability requirements.

(a) *Coverage for sudden accidental occurrences.* An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in paragraphs (a) (1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraph (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

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(7) An owner or operator shall notify the Regional Administrator in writing within 30 days (i) whenever a claim for bodily injury or property damages caused by the operation of a hazardous waste treatment, storage, or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by paragraphs (a)(1) through (a)(6) of this section is reduced.

(b) *Coverage for nonsudden accidental occurrences.* An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in paragraphs (b) (1), (2), (3), (4), (5), or (6), of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations

of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amount required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Regional Administrator in writing within 30 days (i) whenever a claim for bodily injury or property damages caused by the operation of a hazardous waste treatment, storage, or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by paragraphs (a)(1) through (a)(6) of this section is reduced.

(c) *Request for variance.* If an owner or operator can demonstrate to the satisfaction of the Regional Administrator that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Regional Administrator. The request for a variance must be submitted to the Regional Administrator as part of the application under § 270.14 of this chapter for a facility that does not have a permit, or pursuant to the procedures for permit modification under § 124.5 of this chapter for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section. Any request for a variance for a permitted facility will be treated as a request for a permit modification under §§ 270.41(a)(5) and 124.5 of this chapter.

(d) *Adjustments by the Regional Administrator.* If the Regional Administrator determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Regional Administrator may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Regional Administrator determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under §§ 270.41(a)(5) and 124.5 of this chapter.

(e) *Period of coverage.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain liability coverage for that facility, unless the Regional Administrator has reason to believe that closure has not been in accordance with the approved closure plan.

(f) *Financial test for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1)(i) or (ii):

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either: (*1*) At least 90 percent of his total assets; or (*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either: (*1*) At least 90 percent of his total assets; or (*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by §§ 264.143(f), 264.145(f), 265.143(e), and 265.145(e), and liability coverage, he must submit the letter specified in § 264.151(g) to cover both forms of financial responsibility; a separate letter as specified in § 264.151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance for the entire

amount of required liability coverage as specified in this section. Evidence of insurance must be submitted to the Regional Administrator within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) *Guarantee for liability coverage.* (1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(6) of this section. The wording of the guarantee must be identical to the wording specified in § 264.151(h)(2) of this part. A certified copy of the guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of (A) the State in which the guarantor is incorporated, and (B) each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if (A) the non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business, and (B) the Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(h) *Letter of credit for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter or credit that conforms to the requirements of this paragraph and submitting a copy of the letter of credit to the Regional Administrator.

(2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(3) The wording of the letter of credit must be identical to the wording specified in § 264.151(k) of this part.

(i) *Surety bond for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this paragraph and submitting a copy of the bond to the Regional Administrator.

(2) The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond must be identical to the wording specified in § 264.151(l) of this part.

(4) A surety bond may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of (i) the State in which the surety is incorporated, and (ii) each State in which a facility covered by the surety bond is located have submitted a written statement to EPA that a surety bond executed as described in this section and § 264.151(l) of this part is a legally valid and enforceable obligation in that State.

(j) *Trust fund for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator.

(2) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund must be identical to the wording specified in § 264.151(m) of this part.

(k) Notwithstanding any other provision of this part, an owner or operator using liability insurance to satisfy the requirements of this section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

(Approved by the Office of Management and Budget under control number 2000-0445, for paragraphs (a)(1)(i), (b)(1)(i), (c), (d), and (f)(3) through (6))

[47 FR 16554, Apr. 16, 1982, as amended at 47 FR 28627, July 1, 1982; 47 FR 30447, July 13, 1982; 48 FR 30115, June 30, 1983; 51 FR 16450, May 2, 1986; 51 FR 25354, July 11, 1986; 52 FR 44320, Nov. 18, 1987; 52 FR 46964, Dec. 10, 1987; 53 FR 33950, Sept. 1, 1988]

§ 264.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 264.143(f) and 264.145(f) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of § 264.143, § 264.145, or § 264.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 264.149 Use of State-required mechanisms.

(a) For a facility located in a State where EPA is administering the requirements of this subpart but where the State has hazardous waste regulations that include requirements for financial assurance of closure or post-closure care or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 264.143, § 264.145, or § 264.147, if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanism specified in this subpart. The Regional Administrator will evaluate the equivalency of the mechanisms principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this subpart. The submission must include the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 264.143, § 264.145, or § 264.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 264.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure, post-closure care, or liability requirements of this part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 264.143, § 264.145, or § 264.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this subpart. The letter from the State must include, or have attached to it, the following information: the facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 264.143, § 264.145, or § 264.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by use of both the State's assurance *and* additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 264.151 Wording of the instruments.

(a)(1) A trust agreement for a trust fund, as specified in § 264.143(a) or § 264.145(a) or § 265.143(a) or § 265.145(a) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of —" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that:*

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To tranfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151(a)(1) as such regulations were constituted on the date first above written.

[Signature of Grantor]
[Title]
Attest:
[Title]
[Seal]
[Signature of Trustee]
Attest:
[Title]
[Seal]

(2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in §§ 264.143(a) and 264.145(a) or §§ 265.143(a) or 265.145(a) of this chapter. State requirements may differ on the proper content of this acknowledgment.

State of __________
County of __________

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(b) A surety bond guaranteeing payment into a trust fund, as specified in § 264.143(b) or § 264.145(b) or § 265.143(b) or § 265.145(b) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

FINANCIAL GUARANTEE BOND

Date bond executed:
Effective date:
Principal: [legal name and business address of owner or operator]
Type of Organization: [insert "individual," "joint venture," "partnership," or "corporation"]
State of incorporation: __________
Surety(ies): [name(s) and business address(es)]
EPA Identification Number, name, address and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]: __________
Total penal sum of bond: $ __________
Surety's bond number: __________

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility, Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by an EPA Regional Administrator or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Subpart H of 40 CFR Part 264 or 265, as applicable, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an EPA Regional Administrator that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 264.151(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)] ————————————
[Name(s)] ————————————
[Title(s)] ————————————
[Corporate seal] ————————————

Corporate Surety(ies)

[Name and address]
State of incorporation:] ————————
Liability limit: $ ————————————
[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: $ ————————————

(c) A surety bond guaranteeing performance of closure and/or post-closure care, as specified in § 264.143(c) or § 264.145(c), must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed: ——————————
Effective date: ——————————
Principal: [legal name and business address of owner or operator]
Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]
State of incorporation: ——————————
Surety(ies): [name(s) and business address(es)] ——————————
EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]:———
Total penal sum of bond: $ ——————————
Surety's bond number: ——————————

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit in order to own or operate each hazardous waste management facility indentified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the closure requirements of 40 CFR Part 264, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the post-closure requirements of 40 CFR Part 264 for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has failed to provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, and obtain written approval of such assurance from the EPA Regional Administrator(s) during the 90 days following receipt by both the Principal and the EPA Regional Administrator(s) of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional

Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an *optional* rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 264.151(c) as such regulation was constituted on the date this bond was executed.

Principal

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

Corporate Surety(ies)

[Name and address]

State of incorporation: ——————

Liability limit: $ ——————

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $ ——————

(d) A letter of credit, as specified in § 264.143(d) or § 264.145(d) or § 265.143(c) or § 265.145(c) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Regional Administrator(s)
Region(s) ——————
U.S. Environmental Protection Agency

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No.—— in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars $——, available upon presentation [insert, if more than one Regional Administrator is a beneficiary, "by any one of you"] of

(1) your sight draft, bearing reference to this letter of credit No.——, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 264.151(d) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(e) A certificate of insurance, as specified in § 264.143(e) or § 264.145(e) or § 265.143(d) or § 265.145(d) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer
(herein called the "Insurer"): ——————
Name and Address of Insured
(herein called the "Insured"): ——————
Facilities Covered: [List for each facility: The EPA Identification Number, name,

address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered must total the face amount shown below).]

Face Amount: ————————

Policy Number: ————————

Effective Date: ————————

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and post-closure care" or "post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator(s) of the U.S. Environmental Protection Agency, the Insurer agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e) as such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]
[Name of person signing]
[Title of person signing]
Signature of witness or notary: ————
[Date]

(f) A letter from the chief financial officer, as specified in § 264.143(f) or § 264.145(f) or § 265.143(e) or § 265.145(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located.]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Parts 264 and 265.

[Fill out the following four paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ————.

2. This firm guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ————.

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ————.

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is *not* demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ————.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of § 264.143 or § 264.145, or of paragraph (e)(1)(i) of § 265.143 or § 265.145 of this chapter are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of § 264.143 or § 264.145, or of paragraph (e)(1)(ii) of § 265.143 or § 265.145 of this chapter are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates [total of *all* cost estimates shown in the four paragraphs above] .... $........

*2. Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4] ....

*3. Tangible net worth ....

*4. Net worth ....

*5. Current assets ....

*6. Current liabilities ....

7. Net working capital [line 5 minus line 6] ....

*8. The sum of net income plus depreciation, depletion, and amortization ....

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) ....

	Yes	No
10. Is line 3 at least $10 million?		
11. Is line 3 at least 6 times line 1?		
12. Is line 7 at least 6 times line 1?		
*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14.		
14. Is line 9 at least 6 times line 1?		
15. Is line 2 divided by line 4 less than 2.0?		
16. Is line 8 divided by line 2 greater than 0.1?		
17. Is line 5 divided by line 6 greater than 1.5?		

ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates [total of *all* cost estimates shown in the four paragraphs above] .... $——

2. Current bond rating of most recent issuance of this firm and name of rating service .... ——

3. Date of issuance of bond .... ——

4. Date of maturity of bond .... ——

*5. Tangible net worth [if any portion of the closure and post-closure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line] .... $——

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) .... $——

	Yes	No
7. Is line 5 at least $10 million?	—	—
8. Is line 5 at least 6 times line 1?	—	—
*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10.	—	—
10. Is line 6 at least 6 times line 1?	—	—

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(f) as such regulations were constituted on the date shown immediately below.

[Signature]
[Name]
[Title]
[Date]

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under Part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:

(g) A letter from the chief financial officer, as specified in § 264.147(f) or § 265.147(f) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located.]

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in Subpart H of 40 CFR Parts 264 and 265.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, and address.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265: ______.

The firm identified above guarantees, through the guarantee specified in Subpart H or 40 CFR Parts 264 and 265, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: ______. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ______; or (3) engaged in the following substantial business relationship with the owner or operator ______, and receiving the following value in consideration of this guarantee ______.] [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following four paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimate covered by the test are shown for each facility: _____.

2. The firm identified above guarantees, through the guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____.

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure or post-closure cost estimates covered by such a test are shown for each facility: _____.

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in part A if you are using the financial test to demonstrate coverage *only* for the liability requirements.]

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of § 264.147 or § 265.147 are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of § 264.147 or § 265.147 are used.]

Alternative I

1.	Amount of annual aggregate liability coverage to be demonstrated.	$....................	
*2.	Current assets	$....................	
*3.	Current liabilities.	$....................	
4.	Net working capital (line 2 minus line 3).	$....................	
*5.	Tangible net worth.	$....................	
*6.	If less than 90% or assets are located in the U.S., given total U.S. assets.	$....................	
		Yes	No
7.	Is line 5 at least $10 million?	....	
8.	Is line 4 at least 6 times line 1?	....	
9.	Is line 5 at least 6 times line 1?		
*10.	Are at least 90% of assets located in the U.S.? If not, complete line 11.	....	
11.	Is line 6 at least 6 times line 1?	....	

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated. $........................

2. Current bond rating of most recent issuance and name of rating service. ....

3. Date of issuance of bond. ....

4. Date of maturity of bond. ....

*5. Tangible net worth. $........................

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.). $........................

Yes No

7. Is line 5 at least $10 million? ....

8. Is line 5 at least 6 times line 1? ....

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. ....

10. Is line 6 at least 6 times line 1? ....

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage *and* closure or post-closure care.]

Part B. Closure or Post-Closure Care and Liability Coverage

[Fill in Alternative I if the criteria of paragraphs (f)(1)(i) of § 264.143 or § 264.145 and (f)(1)(i) of § 264.147 are used or if the criteria of paragraphs (e)(1)(i) of § 265.143 or § 265.145 and (f)(1)(i) of § 265.147 are used. Fill in Alternative II if the criteria of paragraphs (f)(1)(ii) of § 264.143 or § 264.145 and (f)(1)(ii) of § 264.147 are used or if the criteria of paragraphs (e)(1)(ii) of § 265.143 or § 265.145 and (f)(1)(ii) of § 265.147 are used.]

Alternative I

1. Sum of current closure and post-closure cost estimates (total of *all* cost estimates listed above). $........................

2. Amount of annual aggregate liability coverage to be demonstrated. $........................

3. Sum of lines 1 and 2. $........................

*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6). $........................

*5. Tangible net worth. $........................

*6. Net worth .... $........................

*7. Current assets...... $........................

*8. Current liabilities. $........................

9. Net working capital (line 7 minus line 8). $........................

*10. The sum of net income plus depreciation, depletion, and amortization. $........................

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.). $........................

Yes No

12. Is line 5 at least $10 million? ....

13. Is line 5 at least 6 times line 3? ....

14. Is line 9 at least 6 times line 3? ....

*15. Are at least 90% of assets located in the U.S.? If not, complete line 16. ....

16. Is line 11 at least 6 times line 3? ....

17. Is line 4 divided by line 6 less than 2.0? ....

18. Is line 10 divided by line 4 greater than 0.1? ....

19. Is line 7 divided by line 8 greater than 1.5? ....

Alternative II

1. Sum of current closure and post-closure cost estimates (total of *all* cost estimates listed above). $......................

2. Amount of annual aggregate liability coverage to be demonstrated. $......................

3. Sum of lines 1 and 2. $......................

4. Current bond rating of most recent issuance and name of rating service. ....

5. Date of issuance of bond. ....

6. Date of maturity of bond. ....

*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line). $.................

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.). $.................

Yes N

9. Is line 7 at least $10 million? ....

10. Is line 7 at least 6 times line 3? ....

*11. Are at least 90% of assets located in the U.S.? If not, complete line 12. ....

12. Is line 8 at least 6 times line 3? ....

I hereby certify that the wording of th letter is identical to the wording specified 40 CFR 264.151(g) as such regulations we constituted on the date shown immediat below.

[Signature] ——————————

[Name] ——————————

[Title] ——————————

[Date] ——————————

(h)(1) A corporate guarantee, specified in § 264.143(f) or § 264.145(or § 265.143(e) or § 265.145(e) of th chapter, must be worded as follow except that instructions in bracke are to be replaced with the relevant i formation and the brackets deleted:

CORPORATE GUARANTEE FOR CLOSURE OR POST-CLOSURE CARE

Guarantee made this [date] by [name guaranteeing entity], a business corporati organized under the laws of the State [insert name of State], herein referred to as guarantor, to the United States Environmental Protection Agency (EPA), obligee, on behalf of our subsidiary [owner or operator] of [business address].

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 264.143(f), 264.145(f), 265.143(e), and 265.145(e).

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by Subpart G of 40 CFR Parts 264 and 265 for the closure and post-closure care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees to EPA that in the event that [owner or operator] fails to perform [insert "closure," "post-closure care" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other permit or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subpart H of 40 CFR Part 264 or 265, as applicable, in the name of [owner or operator] in the amount of the current closure or post-closure cost estimates as specified in Subpart H of 40 CFR Parts 264 and 265.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264 or 265, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Subpart H of 40 CFR Part 264 or 265, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR Part 264 or 265.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of Subpart H of 40 CFR Parts 264 and 265 for the above-listed facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located and to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by both EPA and [owner or operator], as evidenced by the return receipts.

10. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264 or 265, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

11. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 264.151(h) as such regulations were constitituted on the date first above written.

Effective date: ————————

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: ————

(2) A guarantee, as specified in § 264.147(g) or § 265.147(g) of this chapter, must be worded as follows,

except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

GUARANTEE FOR LIABILITY COVERAGE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of ——" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of our subsidiary [owner or operator] of [business address], to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

RECITALS

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 264.147(g) and 265.147(g).

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settle-
ment agreement(s) up to the limits of cove
age identified above.

4. Such obligation does not apply to a
of the following:

(a) Bodily injury or property damage f
which [insert owner or operator] is oblig
ed to pay damages by reason of the assum
tion of liability in a contract or agreemen
This exclusion does not apply to liability f
damages that [insert owner or operato
would be obligated to pay in the absnce
the contract or agreement.

(b) Any obligation of [insert owner or o
erator] under a workers' compensation, d
ability benefits, or unemployment compe
sation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or oper
tor] arising from, and in the course of, e
ployment by [insert owner or operator]; or

(2) The spouse, child, parent, brother
sister of that employee as a consequence o
or arising from, and in the course of e
ployment by [insert owner or operato
This exclusion applies:

(A) Whether [insert owner or operato
may be liable as an employer or in a
other capacity; and

(B) To any obligation to share damag
with or repay another person who must p
damages because of the injury to perso
identified in paragraphs (1) and (2).

(d) Bodily injury or property damage ari
ing out of the ownership, maintenance, us
or entrustment to others of any aircra
motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occ
pied by [insert owner or operator];

(2) Premises that are sold, given away
abandoned by [insert owner or operator]
the property damage arises out of any pa
of those premises;

(3) Property loaned to [insert owner or o
erator];

(4) Personal property in the care, custod
or control of [insert owner or operator];

(5) That particular part of real propert
on which [insert owner or operator] or an
contractors or subcontractors working d
rectly or indirectly on behalf of [inse
owner or operator] are performing ope
ations, if the property damage arises out
these operations.

5. Guarantor agrees that if, at the end
any fiscal year before termination of th
guarantee, the guarantor fails to meet th
financial test criteria, guarantor shall sen
within 90 days, by certified mail, notice
the EPA Regional Administrator[s] for th
Region[s] in which the facility[ies] is[are
located and to [owner or operator] that h
intends to provide alternate liability cove
age as specified in 40 CFR 264.147 an
265.147, as applicable, in the name o
[owner or operator]. Within 120 days afte

the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in 40 CFR 264.147 or 265.147 in the name of [owner or operator], unless [owner or operator] has done so.

8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 40 CFR 264.147 and 265.147, provided that such modification shall become effective only if a Regional Administrator does not disapprove the modification within 30 days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of 40 CFR 264.147 and 265.147 for the above-listed facility(ies), except as provided in paragraph 9 of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the EPA Regional Administrator(s) approve(s), alternate liability coverage complying with 40 CFR 264.147 and/or 265.147.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage cuased by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signatures]
Principal

(Notary) Date

[Signatures]
Claimant(s)

(Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in 40 CFR 264.151(h)(2) as such regulations were constituted on the date shown immediately below.

Effective date: ——————————

[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness of notary:

———————————————

(i) A hazardous waste facility liability endorsement as required in § 264.147 or § 265.147 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at [list EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such writte
notice is received by the Region
Administrator(s) of the EPA Region(s)
which the facility(ies) is (are) located.

Attached to and forming part of polic
No. —— issued by [name of Insurer
herein called the Insurer, of [address of I
surer] to [name of insured] of [address] th
— day of ——, 19—. The effective date
said policy is — day of ——, 19—.

I hereby certify that the wording of th
endorsement is identical to the wordin
specified in 40 CFR 264.151(i) as such regu
lation was constituted on the date fir
above written, and that the Insurer is l
censed to transact the business of insuranc
or eligible to provide insurance as an exce
or surplus lines insurer, in one or mor
States.

[Signature of Authorized Representative
Insurer]

[Type name]

[Title], Authorized Representive of [nam
of Insurer]

[Address of Representative]

(j) A certificate of liability insuranc
as required in § 264.147 or § 265.14
must be worded as follows, except tha
the instructions in brackets are to b
replaced with the relevant informa
tion and the brackets deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer"),
[address of Insurer] hereby certifies that
has issued liability insurance coverin
bodily injury and property damage
[name of insured], (the "insured"), of [a
dress of insured] in connection with the i
sured's obligation to demonstrate financi
responsibility under 40 CFR 264.147
265.147. The coverage applies at [list EP
Identification Number, name, and addres
for each facility] for [insert "sudden acc
dental occurrences," "nonsudden accident
occurrences," or "sudden and nonsudden a
cidental occurrences"; if coverage is for mu
tiple facilities and the coverage is differe
for different facilities, indicate which facil
ties are insured for sudden accidental occu
rences, which are insured for nonsudden a
cidental occurrences, and which are insure
for both]. The limits of liability are [inse
the dollar amount of the "each occurrence
and "annual aggregate" limits of the Insu
er's liability], exclusive of legal defens
costs. The coverage is provided under polic
number ——, issued on [date]. The effe
tive date of said policy is [date].

2. The Insurer further certifies the follow
ing with respect to the insurance describe
in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corportation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(k) A letter of credit, as specified in § 264.147(h) or § 265.147(h) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Name and Address of Issuing Institution
Regional Administrator(s)
Region(s)
U.S. Environmental Protection Agency

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. ______ in the favor of any and all third-party liability claimants, at the request and for the account of [owner's or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $______ per occurrence and the annual aggregate amount of [in words] U.S. dollars $______, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars $______ per occurrence, and the annual aggregate amount of [in words] U.S. dollars $______, for nonsudden accidental occurrences available upon presentation of a sight draft, bearing reference to this letter of credit No. ______, and (1) a signed certificate reading as follows:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert principal] and [insert name and address of third-party claimants], hereby certify that the claim of bodily injury [and/or] property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $______. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures]
Principal

[Signatures]
Claimant(s)

or (2) a valid final court order establishing a judgment against the principal for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from operation of the principal's facility or group of facilities.

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the USEPA Regional Administrator for Region [Region #], and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess"] coverage.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 264.151(k) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]
[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce" or "the Uniform Commercial Code"].

(l) A surety bond, as specified in § 264.147(h) or § 265.147(h) of this chapter, must be worded as follows: except that instructions in brackets are to be replaced with the relevant i
formation and the brackets deleted:

Payment Bond

Surety Bond No. [Insert number]

Parties [Insert name and address of own
or operator], Principal, incorporated
[Insert State of incorporation] of [Inse
city and State of principal place of busines
and [Insert name and address of sure
company(ies)], Surety Company(ies),
[Insert surety(ies) place of business].

EPA Identification Number, name, a
address for each facility guaranteed by th
bond: ______

	Sudden accidental occurrences	Nonsudden accidental occurrences
Penal Sum Per Occurrence.	[insert amount].......	[insert amount]
Annual Aggregate ...	[insert amount].......	[insert amount]

Purpose: This is an agreement betwee
the Surety(ies) and the Principal und
which the Surety(ies), its(their) successo
and assignees, agree to be responsible f
the payment of claims against the Princip
for bodily injury and/or property damage
third parties caused by ["sudden" and/
"nonsudden"] accidental occurrences arisi
from operations of the facility or group
facilities in the sums prescribed herein; su
ject to the governing provisions and the f
lowing conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conse
vation and Recovery Act of 1976, as amen
ed.

(2) Rules and regulations of the U.S. Env
ronmental Protection Agency (EPA), pa
ticularly 40 CFR ["§ 264.147"
"§ 265.147"] (if applicable).

(3) Rules and regulations of the governi
State agency (if applicable) [insert citation

Conditions:

(1) The Principal is subject to the applic
ble governing provisions that require th
Principal to have and maintain liability co
erage for bodily injury and propert
damage to third parties caused
["sudden" and/or "nonsudden"] accident
occurrences arising from operations of th
facility or group of facilities. Such oblig
tion does not apply to any of the followin

(a) Bodily injury or property damage f
which [insert principal] is obligated to pa
damages by reason of the assumption of
ability in a contract or agreement. This e
clusion does not apply to liability for da
ages that [insert principal] would be ob
gated to pay in the absence of the contra
or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal]. This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signature]
Principal

[Notary] Date

[Signature(s)]
Claimant(s)

[Notary] Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Regional Administrator forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the USEPA Regional Administrator for Region [Region #], provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Regional Administrator, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 264.151(1), as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]
[Name(s)]
[Title(s)]
[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]
State of incorporation: ________
Liability Limit: $ ________
[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: $ ________

(m)(1) A trust agreement, as specified in § 264.147(j) or § 265.147(j) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of ______" or "a national bank"], the "trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. *Definitions.* As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. *Identification of Facilities.* This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. *Establishment of Fund.* The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ________ [up to $1 million] per occurrence and ________ [up to $2 million] annual aggregate for sudden accidental occurrences and ________ [up to $3 million] per occurrence and ________ [up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. *Payment for Bodily Injury or Property Damage.* The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signatures]
Grantor

[Signatures]
Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. *Payments Comprising the Fund.* Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. *Trustee Management.* The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that*:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or *held* unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. *Commingling and Investment.* The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. *Express Powers of Trustee.* Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. *Taxes and Expenses.* All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. *Annual Valuations.* The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. *Advice of Counsel.* The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. *Trustee Compensation.* The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. *Successor Trustee.* The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. *Instructions to the Trustee.* All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. *Notice of Nonpayment.* If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equalling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the EPA Regional Administrator.

Section 16. *Amendment of Agreement.* This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. *Irrevocability and Termination.* Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Regional Administrator will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. *Immunity and Indemnification.* The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. *Choice of Law.* This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. *Interpretation.* As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151(m) as such regulations were constituted on the date first above written.

[Signature of Grantor]
[Title]
Attest:
[Title]
[Seal]

[Signature of Trustee]
Attest:
[Title]
[Seal]

(2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in §§ 264.147(j) or 265.147(j) of this chapter. State requirements may differ on the proper content of this acknowledgement.

State of ______
County of ______

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(Approved by the Office of Management and Budget under control number 2000-0445, for paragraphs (g), (i), and (j))

[47 FR 15059, Apr. 7, 1982, as amended at 47 FR 16556, Apr. 16, 1982; 47 FR 17989, Apr. 27, 1982; 47 FR 19995, May 10, 1982; 47 FR 28627, July 1, 1982; 51 FR 16450, May 2, 1986; 51 FR 25354, July 11, 1986; 52 FR 44320, Nov. 18, 1987; 53 FR 33952, Sept. 1, 1988]

Subpart I—Use and Management of Containers

SOURCE: 46 FR 2866, Jan. 12, 1981, unless otherwise noted.

§ 264.170 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as § 264.1 provides otherwise.

[*Comment:* Under § 261.7 and § 261.33(c), if a hazardous waste is emptied from a container the residue remaining in the container is not considered a hazardous waste if the container is "empty" as defined in § 261.7. In that event, management of the container is exempt from the requirements of this subpart.]

§ 264.171 Condition of containers.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this part.

§ 264.172 Compatibility of waste with containers.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

§ 264.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[*Comment:* Reuse of containers in transportation is governed by U.S. Department of Transportation regulations (including those set forth in 49 CFR 173.28.]

§ 264.174 Inspections.

At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

[*Comment:* See §§ 264.15(c) and 264.171 for remedial action required if deterioration or leaks are detected.]

§ 264.175 Containment.

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.

(b) A containment system must be designed and operated as follows:

(1) A base must underly the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

(4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) of this section to contain any run-on which might enter the system; and

(5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

[*Comment:* If the collected material is a hazardous waste under Part 261 of this Chapter, it must be managed as a hazardous waste in accordance with all applicable requirements of Parts 262 through 266 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of section 402 of the Clean Water Act, as amended.]

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by paragraph (b) of this section, except as provided by paragraph (d) of this section or provided that:

(1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

(2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by paragraph (b) of this section:

(1) FO20, FO21, FO22, FO23, FO26, and FO27.

(2) [Reserved]

[46 FR 55112, Nov. 6, 1981, as amended at 50 FR 2003, Jan. 14, 1985]

§ 264.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[*Comment:* See § 264.17(a) for additional requirements.]

§ 264.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials (see Appendix V for examples), must not be placed in the same container, unless § 264.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

[*Comment:* As required by § 264.13, the waste analysis plan must include analyses needed to comply with § 264.177. Also, § 264.17(c) requires wastes analyses, trial tests or other documentation to assure compliance with § 264.17(b). As required by § 264.73, the owner or operator must place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.]

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[*Comment:* The purpose of this section is to prevent fires, explosions, gaseous emission, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

§ 264.178 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed.

[*Comment:* At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with § 261.3(d) of this chapter that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262 through 266 of this chapter].

Subpart J—Tank Systems

SOURCE: 51 FR 25472, July 14, 1986, unless otherwise noted.

§ 264.190 Applicability.

The requirements of this Subpart apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in paragraphs (a) and (b) of this section or in § 264.1 of this part.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in § 264.193. To demonstrate the absence or presence of free liquids in the stored/treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

(b) Tank systems, including sumps, as defined in § 260.10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in § 264.193(a).

(Information collection requirement contained in paragraph (a) was approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25472, July 14, 1986; 51 FR 29430, Aug. 15, 1986, as amended at 53 FR 34086, Sept. 2, 1988]

§ 264.191 Assessment of existing tank system's integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of § 264.193, the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in paragraph (c) of this section, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified registered professional engineer, in accordance with § 270.11(d), that attests to the tank system's integrity by January 12, 1988.

(b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been and will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified, registered professional engineer in accordance with § 270.11(d), that addresses cracks, leaks, corrosion, and erosion.

[NOTE: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.]

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986, must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with paragraph (a), a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of § 264.196.

(Information collection requirements contained in paragraphs (a) through (d) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25472, July 14, 1986; 51 FR 29430, Aug. 15, 1986]

§ 264.192 Design and installation of new tank systems or components.

(a) Owners or operators of new tank systems or components must obtain and submit to the Regional Administrator, at time of submittal of Part B information, a written assessment, reviewed and certified by an independent, qualified registered professional engineer, in accordance with § 270.11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the Regional Administrator to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

(1) Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;

(2) Hazardous characteristics of the waste(s) to be handled;

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(A) Soil moisture content;

(B) Soil pH;

(C) Soil sulfides level;

(D) Soil resistivity;

(E) Structure to soil potential;

(F) Influence of nearby underground metal structures (e.g., piping);

(G) Existence of stray electric current;

(H) Existing corrosion-protection measures (e.g., coating, cathodic protection), and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(A) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.;

(B) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (e.g., impressed current or sacrificial anodes); and

(C) Electrical isolation devices such as insulating joints, flanges, etc.

[NOTE: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)—Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in providing corrosion protection for tank systems.]

(4) For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of § 264.18(a); and

(iii) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction/installation.

All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed into use.

(e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

[NOTE: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems," or ANSI Standard B31.3, "Petroleum Refinery Piping," and ANSI Standard B31.4 "Liquid Petroleum Transportation Piping System," may be used, where applicable, as guidelines for proper installation of piping systems.]

(f) The owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under paragraph (a)(3) of this section, or other corrosion protection if the Regional Administrator believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of paragraphs (b) through (f) of this section, that attest that the tank system was properly designed and installed and that repairs, pursuant to paragraphs (b) and (d) of this section, were performed. These written statements must also include the certification statement as required in § 270.11(d) of this chapter.

(Information collection requirements contained in paragraphs (a) and (g) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25472, July 14, 1986; 51 FR 29430, Aug. 15, 1986]

§ 264.193 Containment and detection of releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in paragraphs (f) and (g) of this section):

(1) For all new tank systems or components, prior to their being put into service;

(2) For all existing tank systems used to store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after January 12, 1987;

(3) For those existing tank systems of known and documented age, within two years after January 12, 1987 or when the tank system has reached 15 years of age, whichever comes later;

(4) For those existing tank systems for which the age cannot be documented, within eight years of January 12, 1987; but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches 15 years of age, or within two years of January 12, 1987, whichever comes later; and

(5) For tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the time intervals required in paragraphs (a)(1) through (a)(4) of this section, except that the date that

a material becomes a hazardous waste must be used in place of January 12, 1987.

(b) Secondary containment systems must be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of paragraph (b) of this section, secondary containment systems must be at a minimum:

(1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the Regional Administrator that existing detection technologies or site conditions will not allow detection of a release within 24 hours; and

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the Regional Administrator that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

[NOTE: If the collected material is a hazardous waste under Part 261 of this chapter, it is subject to management as a hazardous waste in accordance with all applicable requirements of Parts 262 through 265 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302.]

(d) Secondary containment for tanks must include one or more of the following devices:

(1) A liner (external to the tank);

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Regional Administrator

(e) In addition to the requirements of paragraphs (b), (c), and (d) of this section, secondary containment systems must satisfy the following requirements:

(1) External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

(2) Vault systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event:

(iii) Constructed with chemical-resistant water stops in place at all joints (if any):

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(A) Meets the definition of ignitable waste under § 262.21 of this chapter; or

(B) Meets the definition of reactive waste under § 262.21 of this chapter, and may form an ignitable or explosive vapor.

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks must be:

(i) Designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell.

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell: and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the Regional Administrator, and the Regional Administrator concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

[NOTE: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.]

(f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of paragraphs (b) and (c) of this section except for:

(1) Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements of this section if the Regional Administrator finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the ground water; or surface water at least as effectively as secondary containment during the active life of the tank system *or* that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with paragraph (g)(2) of this section, be exempted from the secondary containment requirements of this section.

(1) In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water

and surface water, the Regional Administrator will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and ground water, and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water

(2) In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the Regional Administrator will consider:

(i) The potential adverse effects on ground water, surface water, and land quality taking into account:

(A) The physical and chemical characteristics of the waste in the tank system, including its potential for migration.

(B) The hydrogeological characteristics of the facility and surrounding land,

(C) The potential for health risks caused by human exposure to waste constituents,

(D) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(E) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on ground-water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The proximity and withdrawal rates of ground-water users,

(C) The current and future uses of ground water in the area, and

(D) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The patterns of rainfall in the region,

(C) The proximity of the tank system to surface waters,

(D) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(E) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(A) The patterns of rainfall in the region, and

(B) The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of paragraph (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of § 264.196, except paragraph (d), and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(A) Enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with paragraph (g)(3)(ii) of this section, comply with the requirement of § 264.197(b).

(4) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of paragraph (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of § 264.196 (a), (b), (c), and (d); and

(ii) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if ground water has been contaminated, the owner or operator must comply with the requirements of § 264.197(b); and

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of paragraphs (a) through (f) of this section or reapply for a variance from secondary containment and meet the requirements for new tank systems in § 264.192 if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed and ground water or surface water has not been contaminated.

(h) The following procedures must be followed in order to request a variance from secondary containment:

(1) The Regional Administrator must be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in paragraph (g) according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with paragraph (a) of this section.

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation.

(2) As part of the notification, the owner or operator must also submit to the Regional Administrator a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in paragraph (g)(1) or paragraph (g)(2) of this section;

(3) The demonstration for a variance must be completed within 180 days after notifying the Regional Administrator of an intent to conduct the demonstration; and

(4) If a variance is granted under this paragraph, the Regional Administrator will require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.

(i) All tank systems, until such time as secondary containment that meets the requirements of this section is provided, must comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of § 264.191(b)(5) or other tank integrity method, as approved or required by the Regional Administrator, must be conducted at least annually.

(2) For other than non-enterable underground tanks, the owner or operator must either conduct a leak test as in paragraph (i)(1) of this section or develop a schedule and procedure for an assessment of the overall condition of the tank system by an independent, qualified registered professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated.

(3) For ancillary equipment, a leak test or other integrity assessment as approved by the Regional Administrator must be conducted at least annually.

[Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines for assessing the overall condition of the tank system.]

(4) The owner or operator must maintain on file at the facility a

ord of the results of the assess-
nts conducted in accordance with
agraphs (i)(1) through (i)(3) of this
ion.

) If a tank system or component is
nd to be leaking or unfit for use as
sult of the leak test or assessment
paragraphs (i)(1) through (i)(3) of
section, the owner or operator
st comply with the requirements of
4.196.

ormation collection requirements con-
ed in paragraphs (c), (d), (e), (g), (h),
(i) were approved by the Office of Man-
nent and Budget under control number
-0050)

FR 25472, July 14, 1986; 51 FR 29430,
. 15, 1986, as amended at 53 FR 34086,
. 2, 1988]

.194 General operating requirements.

.) Hazardous wastes or treatment
gents must not be placed in a tank
em if they could cause the tank,
ancillary equipment, or the con-
ment system to rupture, leak, cor-
e, or otherwise fail.

) The owner or operator must use
ropriate controls and practices to
vent spills and overflows from tank
ontainment systems. These include
minimum:

) Spill prevention controls (e.g.,
ck valves, dry disconnect cou-
gs);

) Overfill prevention controls (e.g.,
l sensing devices, high level
ms, automatic feed cutoff, or
ass to a standby tank); and

) Maintenance of sufficient free-
rd in uncovered tanks to prevent
topping by wave or wind action or
recipitation.

) The owner or operator must
ply with the requirements of
4.196 if a leak or spill occurs in the
system.

rmation collection requirements con-
d in paragraph (c) were approved by
Office of Management and Budget
r control number 2050-0050)

.195 Inspections.

) The owner or operator must de-
p and follow a schedule and proce-
for inspecting overfill controls.

) The owner or operator must in-
t at least once each operating day:

(1) Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;

(2) Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and

(3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

[NOTE: Section 264.15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section 264.196 requires the owner or operator to notify the Regional Administrator within 24 hours of confirming a leak. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of a release.]

(c) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and

(2) All sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

[NOTE: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)—Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.]

(d) The owner or operator must document in the operating record of the facility an inspection of those items in paragraphs (a) through (c) of this section.

(Information collection requirements contained in paragraph (a) and (d) were approved by the Office of Management and Budget under control number 2050-0050)

§ 264.196 Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:

(a) *Cessation of use; prevent flow or addition of wastes.* The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) *Removal of waste from tank system or secondary containment system.* (1) If the release was from the tank system, the owner/operator must, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) *Containment of visible releases to the environment.* The owner/operator must immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) *Notifications, reports.* (1) Any release to the environment, except as provided in paragraph (d)(2) of this section, must be reported to the Regional Administrator within 24 hours of its detection. If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement.

(2) A leak or spill of hazardous waste is exempted from the requirements of this paragraph if it is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Regional Administrator:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Regional Administrator as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) *Provision of secondary containment, repair, or closure.* (1) Unless the owner/operator satisfies the requirements of paragraphs (e)(2) through (4) of this section, the tank system must be closed in accordance with § 264.197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of § 264.193 before it can be returned to service,

unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of paragraph (f) of this section are satisfied. If a component is replaced to comply with the requirements of this subparagraph, that component must satisfy the requirements for new tank systems or components in §§ 264.192 and 264.193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with § 264.193 prior to being returned to use.

(f) *Certification of major repairs.* If the owner/operator has repaired a tank system in accordance with paragraph (e) of this section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified, registered, professional engineer in accordance with § 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be submitted to the Regional Administrator within seven days after returning the tank system to use.

[NOTE: The Regional Administrator may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under RCRA section 3004(v), 3008(h), or 7003(a) requiring corrective action or such other response as deemed necessary to protect human health or the environment.]

[NOTE: See § 264.15(c) for the requirements necessary to remedy a failure. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of certain releases.]

(Information collection requirements contained in paragraphs (d), (e), and (f) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25472, July 14, 1986; 51 FR 29430, Aug. 15, 1986, as amended at 53 FR 34086, Sept. 2, 1988]

§ 264.197 Closure and post-closure care.

(a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless § 261.3(d) of this Chapter applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in Subparts G and H of this Part.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (a) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in Subparts G and H of this part.

(c) If an owner or operator has a tank system that does not have secondary containment that meets the requirements of § 264.193 (b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with § 264.193(g), then:

(1) The closure plan for the tank system must include both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section.

(2) A contingent post-closure plan for complying with paragraph (b) of this section must be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care must re-

flect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under paragraph (a) of this section.

(4) Financial assurance must be based on the cost estimates in paragraph (c)(3) of this section.

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under Subparts G and H of this Part.

(Information collection requirements contained in paragraphs (a)-(c) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25472, July 14, 1986; 51 FR 29430, Aug. 15, 1986]

§ 264.198 Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in tank systems, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this Chapter, and

(ii) Section 264.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see § 260.11).

§ 264.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank system, unless § 264.17(b) is complied with.

(b) Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless § 264.17(b) is complied with.

Subpart K—Surface Impoundments

SOURCE: 47 FR 32357, July 26, 1982, unless otherwise noted.

§ 264.220 Applicability.

The regulations in this subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as § 264.1 provides otherwise.

§ 264.221 Design and operating requirements.

(a) Any surface impoundment that is not covered by paragraph (c) of this section or § 265.221 of this chapter must have a liner for all portions of the impoundment (except for existing portions of such impoundments). The liner must be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with § 264.228(a)(1). For impoundments that will be closed in accordance with § 264.228(a)(2), the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

(1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness

to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section if the Regional Administrator finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new surface impoundment, each new surface impoundment unit at an existing facility, each replacement of an existing surface impoundment unit, and each lateral expansion of an existing surface impoundment unit, must install two or more liners and a leachate collection system between such liners. The liners and leachate collection system must protect human health and the environment. The requirements of this paragraph shall apply with respect to all waste received after the issuance of the permit. The requirement for the installation of two or more liners in this paragraph may be satisfied by the installation of a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated, and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

(d) Paragraph (c) of this section will not apply if the owner or operator demonstrates to the Regional Administrator, and the Regional Administrator finds for such surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(e) The double liner requirement set forth in paragraph (c) of this section may be waived by the Regional Administrator for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the EP toxicity characteristics in § 261.24 of this chapter; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this paragraph, the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of paragraph (c) of this section on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including but not limited to ground-water monitoring and corrective action;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in § 144.3 of this chapter); and

(C) The monofill is in compliance with generally applicable groundwater monitoring requrements for facilities with permits under RCRA section 3005(c); or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(g) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

(h) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(Approved by the Office of Management and Budget under control number 2050-0007)

[47 FR 32357, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 50 FR 28747, July 15, 1985]

§§ 264.222—264.225 [Reserved]

§ 264.226 Monitoring and inspection.

(a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from § 264.221(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of overtopping control systems;

(2) Sudden drops in the level of the impoundment's contents; and

(3) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time (at least six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

(1) Will withstand the stress of the pressure exerted by the types and

amounts of wastes to be placed in the impoundment; and

(2) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

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[47 FR 32357, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 50 FR 28748, July 15, 1985]

§ 264.227 Emergency repairs; contingency plans.

(a) A surface impoundment must be removed from service in accordance with paragraph (b) of this section when:

(1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or

(2) The dike leaks.

(b) When a surface impoundment must be removed from service as required by paragraph (a) of this section, the owner or operator must:

(1) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(2) Immediately contain any surface leakage which has occurred or is occurring;

(3) Immediately stop the leak;

(4) Take any other necessary steps to stop or prevent catastrophic failure;

(5) If a leak cannot be stopped by any other means, empty the impoundment; and

(6) Notify the Regional Administrator of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in Subpart D of this part, the owner or operator must specify a procedure for complying with the requirements of paragraph (b) of this section.

(d) No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(1) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be recertified in accordance with § 264.226(c).

(2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(i) For any existing portion of the impoundment, a liner must be installed in compliance with § 264.221(a); and

(ii) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of this section and that is not being repaired must be closed in accordance with the provisions of § 264.228.

[47 FR 32357, July 26, 1982, as amended at 50 FR 28748, July 15, 1985]

§ 264.228 Closure and post-closure care.

(a) At closure, the owner or operator must:

(1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in §§ 264.117 through 264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under § 264.117). The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part; and

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(1) If an owner or operator plans to close a surface impoundment in accordance with paragraph (a)(1) of this section, and the impoundment does not comply with the liner requirements of § 264.221(a) and is not exempt from them in accordance with § 264.221(b), then:

(i) The closure plan for the impoundment under § 264.112 must include both a plan for complying with paragraph (a)(1) of this section and a contingent plan for complying with paragraph (a)(2) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator must prepare a contingent post-closure plan under § 264.118 for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.142 and 264.144 for closure and post-closure care of an impoundment subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a)(1) of this section.

[47 FR 32357, July 26, 1982, as amended at 50 FR 28748, July 15, 1985]

§ 264.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

§ 264.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same surface impoundment, unless § 264.17(b) is complied with.

§ 264.231 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for surface impoundments managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

[50 FR 2004, Jan. 14, 1985]

Subpart L—Waste Piles

SOURCE: 47 FR 32359, July 26, 1982, unless otherwise noted.

§ 264.250 Applicability.

(a) The regulations in this subpart apply to owners and operators of facilities that store or treat hazardous waste in piles, except as § 264.1 provides otherwise.

(b) The regulations in this subpart do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under Subpart N of this part (Landfills).

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither runoff nor leachate is generated is not subject to regulation under § 264.251 or under Subpart F of this part, provided that:

(1) Liquids or materials containing free liquids are not placed in the pile;

(2) The pile is protected from surface water run-on by the structure or in some other manner;

(3) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

(4) The pile will not generate leachate through decomposition or other reactions.

§ 264.251 Design and operating requirements.

(a) A waste pile (except for an existing portion of a waste pile) must have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The Regional Administrator will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:

(A) Chemically resistent to the waste managed in the pile and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(ii) Designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section, if the

Regional Administrator finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(f) If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

(g) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

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[47 FR 32359, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§§ 264.252—264.253 [Reserved]

§ 264.254 Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of piles exempt from § 264.251(a)) and cover systems (*e.g.*, membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (*e.g.*, holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

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[47 FR 32359, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 50 FR 28748, July 15, 1985]

§ 264.255 [Reserved]

§ 264.256 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a waste pile unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or re-

active waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 264.257 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same pile, unless § 264.17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with § 264.17(b).

§ 264.258 Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 264.310).

(c)(1) The owner or operator of a waste pile that does not comply with the liner requirements of § 264.251(a)(1) and is not exempt from them in accordance with § 264.250(c) or § 264.251(b), must:

(i) Include in the closure plan for the pile under § 264.112 both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under § 264.118 for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.142 and 264.144 for closure and post-closure care of a pile subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a) of this section.

§ 264.259 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in waste piles that are not enclosed (as defined in § 264.250(c)) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and, FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

[50 FR 2004, Jan. 14, 1985]

Subpart M—Land Treatment

SOURCE: 47 FR 32361, July 26, 1982, unless otherwise noted.

§ 264.270 Applicability.

The regulations in this subpart apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as § 264.1 provides otherwise.

§ 264.271 Treatment program.

(a) An owner or operator subject to this subpart must establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The Regional Administrator will specify in the facility permit the elements of the treatment program, including:

(1) The wastes that are capable of being treated at the unit based on a demonstration under § 264.272;

(2) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with § 264.273(a); and

(3) Unsaturated zone monitoring provisions meeting the requirements of § 264.278.

(b) The Regional Administrator will specify in the facility permit the hazardous constituents that must be degraded, transformed, or immobilized under this subpart. Hazardous constituents are constituents identified in Appendix VIII of Part 261 of this chapter that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The Regional Administrator will specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone must be:

(1) No more than 1.5 meters (5 feet) from the initial soil surface; and

(2) More than 1 meter (3 feet) above the seasonal high water table.

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[47 FR 32361, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.272 Treatment demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator must demonstrate, prior to application of the waste, that hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under paragraph (a) of this section, he must obtain a treatment or disposal permit under § 270.63. The Regional Administrator will specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure and clean-up activities) necessary to meet the requirements in paragraph (c) of this section.

(c) Any field test or laboratory analysis conducted in order to make a demonstration under paragraph (a) of this section must:

(1) Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:

(i) The characteristics of the waste (including the presence of Appendix VIII of Part 261 of this chapter constituents);

(ii) The climate in the area;

(iii) The topography of the sur-ounding area;

(iv) The characteristics of the soil in he treatment zone (including depth); nd

(v) The operating practices to be sed at the unit.

(2) Be likely to show that hazardous onstituents in the waste to be tested vill be completely degraded, trans-ormed, or immobilized in the treat-nent zone of the proposed land treat-nent unit; and

(3) Be conducted in a manner that rotects human health and the envi-onment considering:

(i) The characteristics of the waste o be tested;

(ii) The operating and monitoring neasures taken during the course of he test;

(iii) The duration of the test;

(iv) The volume of waste used in the est;

(v) In the case of field tests, the po-ential for migration of hazardous con-tituents to ground water or surface vater.

47 FR 32361, July 26, 1982, as amended at 8 FR 14294, Apr. 1, 1983]

264.273 Design and operating requirements.

The Regional Administrator will pecify in the facility permit how the wner or operator will design, con-truct, operate, and maintain the land reatment unit in compliance with this ection.

(a) The owner or operator must esign, construct, operate, and main-ain the unit to maximize the degrada-ion, transformation, and immobiliza-ion of hazardous constituents in the reatment zone. The owner or opera-or must design, construct, operate, nd maintain the unit in accord with ll design and operating conditions hat were used in the treatment dem-nstration under § 264.272. At a mini-num, the Regional Administrator will pecify the following in the facility ermit:

(1) The rate and method of waste pplication to the treatment zone;

(2) Measures to control soil pH;

(3) Measures to enhance microbial or chemical reactions (*e.g.*, fertilization, tilling); and

(4) Measures to control the moisture content of the treatment zone.

(b) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (*e.g.*, tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

(g) The owner or operator must inspect the unit weekly and after storms to detect evidence of:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

(2) Improper functioning of wind dispersal control measures.

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[47 FR 32361, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§§ 264.274—264.275 [Reserved]

§ 264.276 Food-chain crops.

The Regional Administrator may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of this section. The Regional Administrator will specify in the facility permit the specific food-chain crops which may be grown.

(a)(1) The owner or operator must demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that hazardous constituents other than cadmium:

(i) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals (*e.g.*, by grazing); or

(ii) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

(2) The owner or operator must make the demonstration required under this paragraph prior to the planting of crops at the facility for all constituents identified in Appendix VIII of Part 261 of this chapter that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(3) In making a demonstration under this paragraph, the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and must:

(i) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (*e.g.*, pH, cation exchange capacity), specific wastes, application rates, application methods, and crops to be grown; and

(ii) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

(4) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under this paragraph, he must obtain a permit for conducting such activities.

(b) The owner or operator must comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

(1)(i) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste must not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food-chain crops, the annual cadmium application rate must not exceed:

Time period	Annual Cd application rate (kilograms per hectare)
Present to June 30, 1984	2.0
July 1, 1984 to December 31, 1986	1.25
Beginning January 1, 1987	0.5

(iii) The cumulative application of cadmium from waste must not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(iv) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/100g; 10 kg/ha if soil CEC is 5-15 meq/100g; and 20 kg/ha if soil CEC is greater than 15 meq/100g; or

(2)(i) Animal feed must be the only food-chain crop produced;

(ii) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food-chain crops are grown;

(iii) There must be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(iv) Future property owners must be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food-chain crops must not be grown except in compliance with paragraph (b)(2) of this section.

§ 264.277 [Reserved]

§ 264.278 Unsaturated zone monitoring.

An owner or operator subject to this subpart must establish an unsaturated zone monitoring program to discharge the following responsibilities:

(a) The owner or operator must monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

(1) The Regional Administrator will specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under § 264.271(b).

(2) The Regional Administrator may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents specified under § 264.271(b). PHCs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Regional Administrator will establish PHCs if he finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation, transformation, or immobilization of the PHCs will assure treatment at at least equivalent levels for the other hazardous constituents in the wastes.

(b) The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

(1) Represent the quality of background soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

(2) Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

(c) The owner or operator must establish a background value for each hazardous constituent to be monitored under paragraph (a) of this section. The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.

(1) Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

(2) Background soil-pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

(3) The owner or operator must express all background values in a form necessary for the determination of statistically significant increases under paragraph (f) of this section.

(4) In taking samples used in the determination of all background values, the owner or operator must use an unsaturated zone monitoring system that complies with paragraph (b)(1) of this section.

(d) The owner or operator must conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The Regional Administrator will specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application, and the soil permeability. The owner or operator must express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under paragraph (f) of this section.

(e) The owner or operator must use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator must implement procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(f) The owner or operator must determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under paragraph (a) of this section below the treatment zone each time he conducts soil monitoring and soil-pore liquid monitoring under paragraph (d) of this section.

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent, as determined under paragraph (d) of this section, to the background value for that constituent according to the statistical procedure specified in the facility permit under this paragraph.

(2) The owner or operator must determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Regional Administrator will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

(3) The owner or operator must determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Regional Administrator will specify a statistical procedure in the facility permit that he finds:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to paragraph (f) of this section, that there is a statistically significant increase of hazardous constituents below the treatment zone, he must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases.

(2) Within 90 days, submit to the Regional Administrator an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.

(h) If the owner or operator determines, pursuant to paragraph (f) of this section, that there is a statistically significant increase of hazardous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under paragraph (g)(2) of this section, he is not relieved of the requirement to submit a permit modification application within the time specified in paragraph (g)(2) of this section unless the demonstration made under this paragraph successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this paragraph, the owner or operator must:

(1) Notify the Regional Administrator in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a determination under this paragraph;

(2) Within 90 days, submit a report to the Regional Administrator demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

(4) Continue to monitor in accordance with the unsaturated zone monitoring program established under this section.

(Approved by the Office of Management and Budget under control number 2050-0038)

[47 FR 32361, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.279 Recordkeeping.

The owner or operator must include hazardous waste application dates and rates in the operating record required under § 264.73.

(Approved by the Office of Management and Budget under control number 2050-0007)

[47 FR 32361, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.280 Closure and post-closure care.

(a) During the closure period the owner or operator must:

(1) Continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under § 264.273(a), except to the extent such measures are inconsistent with paragraph (a)(8) of this section.

(2) Continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under § 264.273(b);

(3) Maintain the run-on control system required under § 264.273(c);

(4) Maintain the run-off management system required under § 264.273(d);

(5) Control wind dispersal of hazardous waste if required under § 264.273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under § 264.276;

(7) Continue unsaturated zone monitoring in compliance with § 264.278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

(8) Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with § 264.115, when closure is completed the owner or operator may submit to the Regional Administrator certification by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period the owner or operator must:

(1) Continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

(2) Maintain a vegetative cover over closed portions of the facility;

(3) Maintain the run-on control system required under § 264.273(c);

(4) Maintain the run-off management system required under § 264.273(d);

(5) Control wind dispersal of hazardous waste if required under § 264.273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under § 264.276; and

(7) Continue unsaturated zone monitoring in compliance with § 264.278, expect that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under paragraphs (a)(8) and (c) of this section if the Regional Administrator finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in paragraph (d)(3) of this section. The owner or operator may submit such a demonstration to the Regional Administrator at any time during the closure of post-closure care periods. For the purposes of this paragraph:

(1) The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under § 264.271 (b).

(i) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(ii) The owner or operator must express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under paragraph (d)(3) of this section.

(2) In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

(3) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under Subpart F of this chapter if the Regional Administrator finds that the owner or operator satisfies paragraph (d) of this section and if unsaturated zone monitoring under § 264.278 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

§ 264.281 Special requirements for ignitable or reactive waste.

The owner or operator must not apply ignitable or reactive waste to the treatment zone unless:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 264.282 Special requirements for incompatible wastes.

The owner or operator must not place incompatible wastes, or incompatible wastes and materials (see Appendix V of this part for examples), in or on the same treatment zone, unless § 264.17(b) is complied with.

§ 264.283 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26 and, FO27 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

[50 FR 2004, Jan. 14, 1985]

Subpart N—Landfills

SOURCE: 47 FR 32365, July 26, 1982, unless otherwise noted.

§ 264.300 Applicability.

The regulations in this subpart apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as § 264.1 provides otherwise.

§ 264.301 Design and operating requirements.

(a) Any landfill that is not covered by paragraph (c) of this section or § 265.301(a) of this chapter must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Regional Administrator will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section if the Regional Administrator finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential

for it to migrate to ground water or surface water.

(c) The owner or operator of each new landfill, each new landfill unit at an existing facility, each replacement of an existing landfill unit, and each lateral expansion of an existing landfill unit, must install two or more liners and a leachate collection system above and between the liners. The liners and leachate collection systems must protect human health and the environment. The requirement for the installation of two or more liners in this paragraph may be satisfied by the installation of a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated, and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

(d) Paragraph (c) of this section will not apply if the owner or operator demonstrates to the Regional Administrator, and the Regional Administrator finds for such landfill, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(e) The double liner requirement set forth in paragraph (c) of this section may be waived by the Regional Administrator for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the EP toxicity characteristics in § 261.24 of this chapter; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in § 144.3 of this chapter); and

(C) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under RCRA 3005(c); or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(g) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(h) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(i) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(j) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(k) Any permit under RCRA 3005(c) which is issued for a landfill located within the State of Alabama shall require the installation of two or more liners and a leachate collection system above and between such liners, notwithstanding any other provision of RCRA.

(Approved by the Office of Management and Budget under control number 2050-0007)

[47 FR 32365, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 50 FR 28748, July 15, 1985]

§ 264.302 [Reserved]

§ 264.303 Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of landfills exempt from § 264.301(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (*e.g.*, holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

[47 FR 32365, July 26, 1982, as amended at 50 FR 28748, July 15, 1985]

§§ 264.304—264.308 [Reserved]

§ 264.309 Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required under § 264.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

(Approved by the Office of Management and Budget under control number 2050-0007)

[47 FR 32365, July 26, 1982, as amended at 50 FR 4514, Jan. 31, 1985]

§ 264.310 Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all post-closure requirements contained in §§ 264.117 through 264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under § 264.117). The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(3) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part;

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(5) Protect and maintain surveyed benchmarks used in complying with § 264.309.

[47 FR 32365, July 26, 1982, as amended at 50 FR 28748, July 15, 1985]

§ 264.311 [Reserved]

§ 264.312 Special requirements for ignitable or reactive waste.

(a) Except as provided in paragraph (b) of this section, and in § 264.316, ignitable or reactive waste must not be placed in a landfill, unless the waste in treated, rendered, or mixed before or immediately after placement in a landfill so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (a) of this section, provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

§ 264.313 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same landfill cell, unless § 264.17(b) is complied with.

§ 264.314 Special requirements for bulk and containerized liquids.

(a) Bulk or non-containerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985 only if:

(1) The landfill has a liner and leachate collection and removal system that meet the requirements of § 264.301(a); or

(2) Before disposal, the liquid wast or waste containing free liquids i treated or stabilized, chemically o physically (e.g., by mixing with an absorbent solid), so that free liquids ar no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerize liquid hazardous waste or hazardou waste containing free liquids (whethe or not absorbents have been added) i any landfill is prohibited.

(c) To demonstrate the absence o presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 909 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemica Methods." [EPA Publication No. SW-846].

(d) Containers holding free liquid must not be placed in a landfill unless

(1) All free-standing liquid: (i) ha been removed by decanting, or othe methods; (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or (ii has been otherwise eliminated; or

(2) The container is very small, suc as an ampule; or

(3) The container is designed to hol free liquids for use other than storage such as a battery or capacitor; or

(4) The container is a lab pack as defined in § 264.316 and is disposed of i accordance with § 264.316.

(e) Effective November 8, 1985, th placement of any liquid which is not hazardous waste in a landfill is prohibited unless the owner or operator o such landfill demonstrates to the Regional Administrator, or the Regiona Administrator determines, that:

(1) The only reasonably available alternative to the placement in suc landfill is placement in a landfill o unlined surface impoundment, whether or not permitted or operating unde interim status, which contains, or ma reasonably be anticipated to contain hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk o contamination of any undergroun source of drinking water (as that term is defined in § 144.3 of this chapter.)

(Approved by the Office of Management and Budget under control number 2050-0037)

[47 FR 32365, July 26, 1982, as amended at 50 FR 18374, Apr. 30, 1985; 50 FR 28748, July 15, 1985]

§ 264.315 Special requirements for containers.

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

§ 264.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178, and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

(c) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with § 264.17(b).

(d) Incompatible wastes, as defined in § 260.10 of this chapter, must not be placed in the same outside container.

(e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in § 261.23(a)(5) of this chapter, must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (a) through (d) of this section. Cyanide- and sulfide-bearing reactive waste may be packed in accordance with paragraphs (a) through (d) of this section without first being treated or rendered non-reactive.

§ 264.317 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in a landfills unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

[50 FR 2004, Jan. 14, 1985]

Subpart O—Incinerators

§ 264.340 Applicability.

(a) The regulations in this subpart apply to owners or operators of facilities that incinerate hazardous waste, except as § 264.1 provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(1) Owners or operators of hazardous waste incinerators (as defined in § 260.10 of this chapter); and

(2) Owners or operators who burn hazardous waste in boilers or in industrial furnaces in order to destroy them, or who burn hazardous waste in boilers or in industrial furnaces for any recycling purpose and elect to be regulated under this subpart.

(b) After consideration of the waste analysis included with Part B of the permit application, the Regional Administrator, in establishing the permit conditions, must exempt the applicant from all requirements of this subpart except § 264.341 (Waste analysis) and § 264.351 (Closure),

(1) If the Regional Administrator finds that the waste to be burned is:

(i) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(ii) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(iii) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under Part 261, Subpart C, of this chapter; or

(iv) A hazardous waste solely because it possesses any of the reactivity characteristics described by § 261.23(a) (1), (2), (3), (6), (7), and (8) of this chapter, and will not be burned when other hazardous wastes are present in the combustion zone; and

(2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Part 261, Appendix VIII, of this chapter, whic would reasonably be expected to be i the waste.

(c) If the waste to be burned is on which is described by paragraph (b)(1)(i), (ii), (iii), or (iv) of this sectio and contains insignificant concentrations of the hazardous constituent listed in Part 261, Appendix VIII, o this chapter, then the Regional Administrator may, in establishing permit conditions, exempt the applicant from all requirements of this subpart, except § 264.341 (Waste analysis and § 264.351 (Closure), after consideration of the waste analysis included with Part B of the permit application unless the Regional Administrator finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

(d) The owner or operator of an incinerator may conduct trial burns subject only to the requirements o § 270.62 of this chapter (Short term and incinerator permits).

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr 1, 1983; 50 FR 665, Jan. 4, 1985; 50 FR 49203 Nov. 29, 1985]

§ 264.341 Waste analysis.

(a) As a portion of the trial burn plan required by § 270.62 of this chapter, or with Part B of the permit application, the owner or operator must have included an analysis of the waste feed sufficient to provide all information required by § 270.62(b) or § 270.19 of this chapter. Owners or operators of new hazardous waste incinerators must provide the information required by § 270.62(c) or § 270.19 of this chapter to the greatest extent possible.

(b) Throughout normal operation the owner or operator must conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in his permit (under § 264.345(b)).

(Approved by the Office of Management and Budget under control number 2050-0002)

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983; 48 FR 30115, June 30, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.342 Principal organic hazardous constituents (POHCs).

(a) Principal Organic Hazardous Constituents (POHCs) in the waste feed must be treated to the extent required by the performance standard of § 264.343.

(b)(1) One or more POHCs will be specified in the facility's permit, from among those constituents listed in Part 261, Appendix VIII of this chapter, for each waste feed to be burned. This specification will be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with Part B of the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as POHCs. Constituents are more likely to be designated as POHCs if they are present in large quantities or concentrations in the waste.

(2) Trial POHCs will be designated for performance of trial burns in accordance with the procedure specified in § 270.62 of this chapter for obtaining trial burn permits.

[46 FR 7678, Jan. 23, 1981, as amended at 48 FR 14295, Apr. 1, 1983]

§ 264.343 Performance standards.

An incinerator burning hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under § 264.345, it will meet the following performance standards:

(a)(1) Except as provided in paragraph (a)(2) of this section, an incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under § 264.342) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$\mathrm{DRE}=\frac{(W_{in}-W_{out})}{W_{in}}\times 100\%$$

where:

W_{in} = mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator

and

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) An incinerator burning hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under § 264.342) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in § 264.343(a)(1). In addition, the owner or operator of the incinerator must notify the Regional Administrator of his intent to incinerate hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27.

(b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour (4 pounds per hour) of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the HCl in the stack gas prior to entering any pollution control equipment.

(c) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = P_m \times \frac{14}{21-Y}$$

Where P_c is the corrected concentration of particulate matter, P_m is the measured concentration of particulate matter, and Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in Part 60, Appendix A (Method 3), of this chapter. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Regional Administrator will select an appropriate correction procedure, to be specified in the facility permit.

(d) For purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 264.345) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this section may be "information" justifying modification, revocation, or reissuance of a permit under § 270.41 of this chapter.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983; 50 FR 2005, Jan. 14, 1985]

§ 264.344 Hazardous waste incinerator permits.

(a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified for those wastes under § 264.345, except:

(1) In approved trial burns under § 270.62 of this chapter; or

(2) Under exemptions created by § 264.340.

(b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be be based on either trial burn results or alternative data included with Part B of a permit application under § 270.19 of this chapter.

(c) The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of this subpart, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of § 264.345, sufficient to comply with the following standards:

(1) For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in paragraph (c)(2) of this section, not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements must be those most likely to ensure compliance with the performance standards of § 264.343, based on the Regional Administrator's engineering judgment. The Regional Administrator may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(2) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of § 264.343 and must be in accordance with the approved trial burn plan;

(3) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Regional Administrator, the operating requirements must be those most likely to ensure compliance with the performance standards of § 264.343, based on the Regional Administrator's engineering judgement.

(4) For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in § 270.19(c) of this chapter, as sufficient to ensure compliance with the performance standards of § 264.343.

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[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985]

§ 264.345 Operating requirements.

(a) An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in § 264.344(b) and included with Part B of a facility's permit application) to be sufficient to comply with the performance standards of § 264.343.

(b) Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of § 264.343) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:

(1) Carbon monoxide (CO) level in the stack exhaust gas;

(2) Waste feed rate;

(3) Combustion temperature;

(4) An appropriate indicator of combustion gas velocity;

(5) Allowable variations in incinerator system design or operating procedures; and

(6) Such other operating requirements as are necessary to ensure that the performance standards of § 264.343 are met.

(c) During start-up and shut-down of an incinerator, hazardous waste (except wastes exempted in accordance with § 264.340) must not be fed into the incinerator unless the incinerator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the permit.

(d) Fugitive emissions from the combustion zone must be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining a combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under paragraph (a) of this section.

(f) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

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[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 50 FR 4514, Jan. 31, 1985]

§ 264.346 [Reserved]

§ 264.347 Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring while incinerating hazardous waste:

(1) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis.

(2) CO must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

(3) Upon request by the Regional Administrator, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the performance standards of § 264.343.

(b) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions, and signs of tampering.

(c) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the Regional Administrator that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.

(d) This monitoring and inspection data must be recorded and the records must be placed in the operating log required by § 264.73.

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[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27533, June 24, 1982; 50 FR 4514, Jan. 31, 1985]

§§ 264.348—264.350 [Reserved]

§ 264.351 Closure.

At closure the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site.

[*Comment:* At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(d) of this chapter, that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of Parts 262 through 266 of this chapter.]

[46 FR 7678, Jan. 23, 1981]

Subparts P–W [Reserved]

Subpart X—Miscellaneous Units

Source: 52 FR 46964, Dec. 10, 1987, unless otherwise noted.

§ 264.600 Applicability.

The requirements in this subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellanenous units, except as § 264.1 provide otherwise.

§ 264.601 Environmental performance standards.

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions shall include those requirements of Subparts I through 0 of this part, Part 270, and Part 146 that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human heath or the environment due to migration of waste constituents in the ground water or subsurface environment, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

(2) The hydrologic and geologic characteristics of the unit and the surrounding area;

(3) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water;

(4) The quantity and direction of ground-water flow;

(5) The proximity to and withdrawal rates of current and potential ground-water users;

(6) The patterns of land use in the region;

(7) The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

(8) The potential for health risks caused by human exposure to waste constituents; and

(9) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(b) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:

(1) The volume and physical and chemical characteristics of the waste in the unit;

(2) The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

(3) The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

(4) The patterns of precipitation in the region;

(5) The quantity, quality, and direction of ground-water flow;

(6) The proximity of the unit to surface waters;

(7) The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;

(8) The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

(9) The patterns of land use in the region;

(10) The potential for health risks caused by human exposure to waste constituents; and

(11) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constitutents.

(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;

(2) The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

(3) The operating characteristics of the unit;

(4) The atmospheric, metorologic, and topographic characteristics of the unit and the surrounding area;

(5) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

(6) The potential for health risks caused by human exposure to waste constituents; and

(7) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

§ 264.602 Monitoring, analysis, inspection, response, reporting, and corrective action.

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with §§ 264.601, 264.15, 264.33, 264.75, 264.76, 264,77, and 264.101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

§ 264.603 Post-closure care.

A miscellaneous unit that is a disposal unit must be maintained in a manner that complies with § 264.601 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or ground water that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of § 264.601 during post-closure care. The post-closure plan under § 264.118 must specify the procedures that will be used to satisfy this requirement.

APPENDIX I—RECORDKEEPING INSTRUCTIONS

The recordkeeping provisions of § 264.73 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping *portions* of the operating record. See § 264.73(b) for additional recordkeeping requirements.

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Part 261 of this chapter which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part 261, Subpart D, of this chapter, the description also must include the process that produced it (for example,

solid filter cake from production of ——, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Part 261, Subpart D, of this chapter, and each hazardous waste characteristic defined in Part 261, Subpart C, of this chapter, has a four-digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1;

TABLE 1

Unit of measure	Symbol[1]	Density
Pounds	P	
Short tons (2000 lbs)	T	
Gallons (U.S.)	G	P/G
Cubic yards	Y	T/Y
Kilograms	K	
Tonnes (1000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

[1] Single digit symbols are used here for data processing purposes.

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

TABLE 2—HANDLING CODES FOR TREATMENT, STORAGE, AND DISPOSAL METHODS

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage
   S01 Container (barrel, drum, etc.)
   S02 Tank
   S03 Waste pile
   S04 Surface impoundment
   S05 Other (specify)
2. Treatment
   (a) Thermal Treatment
   T06 Liquid injection incinerator
   T07 Rotary kiln incinerator
   T08 Fluidized bed incinerator
   T09 Multiple hearth incinerator
   T10 Infrared furnace incinerator
   T11 Molten salt destructor
   T12 Pyrolysis
   T13 Wet Air oxidation
   T14 Calcination
   T15 Microwave discharge
   T16 Cement kiln
   T17 Lime kiln
   T18 Other (specify)
   (b) Chemical Treatment
   T19 Absorption mound
   T20 Absorption field
   T21 Chemical fixation
   T22 Chemical oxidation
   T23 Chemical precipitation
   T24 Chemical reduction
   T25 Chlorination
   T26 Chlorinolysis
   T27 Cyanide destruction
   T28 Degradation
   T29 Detoxification
   T30 Ion exchange
   T31 Neutralization
   T32 Ozonation
   T33 Photolysis
   T34 Other (specify)
   (c) Physical Treatment
   (1) Separation of components
   T35 Centrifugation
   T36 Clarification
   T37 Coagulation
   T38 Decanting
   T39 Encapsulation
   T40 Filtration
   T41 Flocculation
   T42 Flotation
   T43 Foaming
   T44 Sedimentation
   T45 Thickening
   T46 Ultrafiltration
   T47 Other (specify)
   (2) Removal of Specific Components
   T48 Absorption-molecular sieve
   T49 Activated carbon
   T50 Blending
   T51 Catalysis
   T52 Crystallization
   T53 Dialysis
   T54 Distillation
   T55 Electrodialysis
   T56 Electrolysis
   T57 Evaporation
   T58 High gradient magnetic separation
   T59 Leaching
   T60 Liquid ion exchange
   T61 Liquid-liquid extraction
   T62 Reverse osmosis
   T63 Solvent recovery
   T64 Stripping
   T65 Sand filter
   T66 Other (specify)
   (d) Biological Treatment
   T67 Activated sludge
   T68 Aerobic lagoon
   T69 Aerobic tank
   T70 Anaerobic lagoon
   T71 Composting
   T72 Septic tank
   T73 Spray irrigation
   T74 Thickening filter
   T75 Tricking filter
   T76 Waste stabilization pond
   T77 Other (specify)
   T78-79 [Reserved]
3. Disposal

D80 Underground injection
D81 Landfill
D82 Land treatment
D83 Ocean disposal
D84 Surface impoundment (to be closed as a landfill)
D85 Other (specify)

APPENDICES II—III [RESERVED]

APPENDIX IV—COCHRAN'S APPROXIMATION TO THE BEHRENS-FISHER STUDENTS' T-TEST

Using all the available background data (n_b readings), calculate the background mean (X_b) and background variance (s_b^2). For the single monitoring well under investigation (n_m reading), calculate the monitoring mean (X_m) and monitoring variance (s_m^2).

For any set of data ($X_1, X_2, \ldots, X_n$) the mean is calculated by:

$$X = \frac{X_1 + X_2 t \ldots + X_n}{n}$$

and the variance is calculated by:

$$s^2 = \frac{(X_1 - X)^2 + (X_2 - X)^2 t \ldots + (X_n - X)^2}{n-1}$$

where "n" denotes the number of observations in the set of data.

The t-test uses these data summary measures to calculate a t-statistic (t^*) and a comparison t-statistic (t_c). The t^* value is compared to the t_c value and a conclusion reached as to whether there has been a statistically significant change in any indicator parameter.

The t-statistic for all parameters except pH and similar monitoring parameters is:

$$t^* = \frac{X_m - X_B}{\sqrt{\frac{S_m^2}{n_m} + \frac{S_b^2}{n_b}}}$$

If the value of this t-statistic is negative then there is no significant difference between the monitoring data and background data. It should be noted that significantly small negative values may be indicative of a failure of the assumption made for test validity or errors have been made in collecting the background data.

The t-statistic (t_c), against which t^* will be compared, necessitates finding t_b and t_m from standard (one-tailed) tables where,

t_b=t-tables with (n_b-1) degrees of freedom, at the 0.05 level of significance.

t_m=t-tables with (n_m-1) degrees of freedom, at the 0.05 level of significance.

Finally, the special weightings W_b and W_m are defined as:

$$W_B = \frac{s_b^2}{n_b} \quad \text{and} \quad W_m = \frac{s_m^2}{n_m}$$

and so the comparison t-statistic is:

$$t_c = \frac{W_b t_b + W_m t_m}{W_b + W_m}$$

The t-statistic (t^*) is now compared with the comparison t-statistic (t_c) using the following decision-rule:

If *t^* is equal to or larger than* t_c, then conclude that there most likely *has been a significant increase* in this specific parameter.

If *t^* is less than* t_c, then conclude that most likely *there has not been a change* in this specific parameter.

The t-statistic for testing pH and similar monitoring parameters is constructed in the same manner as previously described except the negative sign (if any) is discarded and the caveat concerning the negative value is ignored. The standard (two-tailed) tables are used in the construction t_c for pH and similar monitoring parameters.

If t^* is equal to or larger than t_c, then conclude that there most likely *has been a significant increase* (if the initial t^* had been negative, this would imply a significant decrease). If t^* is less than t_c, then conclude that there most likely has been no change.

A further discussion of the test may be found in *Statistical Methods* (6th Edition, Section 4.14) by G. W. Snedecor and W. G. Cochran, or *Principles and Procedures of Statistics* (1st Edition, Section 5.8) by R. G. D. Steel and J. H. Torrie.

STANDARD T-TABLES 0.05 LEVEL OF SIGNIFICANCE

Degrees of freedom	t-values (one-tail)	t-values (two-tail)
1	6.314	12.706
2	2.920	4.303
3	2.353	3.182
4	2.132	2.776
5	2.015	2.571
6	1.943	2.447
7	1.895	2.365

STANDARD T-TABLES 0.05 LEVEL OF SIGNIFICANCE—Continued

Degrees of freedom	t-values (one-tail)	t-values (two-tail)
8	1.860	2.306
9	1.833	2.262
10	1.812	2.228
11	1.796	2.201
12	1.782	2.179
13	1.771	2.160
14	1.761	2.145
15	1.753	2.131
16	1.746	2.120
17	1.740	2.110
18	1.734	2.101
19	1.729	2.093
20	1.725	2.086
21	1.721	2.080
22	1.717	2.074
23	1.714	2.069
24	1.711	2.064
25	1.708	2.060
30	1.697	2.042
40	1.684	2.021

Adopted from Table III of "*Statistical Tables for Biological, Agricultural, and Medical Research*" (1947, R. A. Fisher and F. Yates).

[47 FR 32367, July 26, 1982]

APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammab
closed tank equipped so that ig
occur, and burning the gases i
tor).

In the lists below, the mixin
A material with a Group B
have the potential consequence

GROUP 1-A

Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosiv
Lime wastewater
Lime and water
Spent caustic

GROUP 1-B

Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid liquid or solvent
Pickling liquor and other corro
Spent acid
Spent mixed acid
Spent sulfuric acid

Potential consequences: Hea
violent reaction.

GROUP 2-A

Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and meta

GROUP 2-B

Any waste in Group 1-A or
  1-B

Potential consequences: Fire
generation of flammable hydro

GROUP 3-A

Alcohols
Water

GROUP 3-B

Any concentrated waste in Gro
  B
Calcium
Lithium
Metal hydrides
Potassium
SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A

Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

Group 4-B

Concentrated Group 1-A or 1-B wastes
Group 2-A wastes

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A

Spent cyanide and sulfide solutions

Group 5-B

Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A

Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

Group 6-B

Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes

Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

[46 FR 2872, Jan. 12, 1981]

Appendix VI—Political Jurisdictions[1] in Which Compliance With § 264.18(a) Must Be Demonstrated

Alaska

Aleutian Islands
Anchorage
Bethel
Bristol Bay
Cordova-Valdez
Fairbanks-Fort Yukon
Juneau
Kenai-Cook Inlet
Ketchikan-Prince of Wales
Kodiak
Lynn Canal-Icy Straits
Palmer-Wasilla-Talkeena
Seward
Sitka
Wade Hampton
Wrangell Petersburg
Yukon-Kuskokwim

Arizona

Cochise
Graham
Greenlee
Yuma

California

All

Colorado

Archuleta
Conejos
Hinsdale
Mineral
Rio Grande
Saguache

Hawaii

Hawaii

Idaho

Bannock
Bear Lake
Bingham
Bonneville
Caribou
Cassia
Clark
Franklin
Fremont
Jefferson
Madison
Oneida
Power
Teton

Montana

Beaverhead
Broadwater
Cascade
Deer Lodge
Flathead
Gallatin
Granite
Jefferson
Lake
Lewis and Clark
Madison
Meagher
Missoula
Park
Powell
Sanders
Silver Bow
Stillwater
Sweet Grass
Teton
Wheatland

Nevada

All

New Mexico

Bernalillo
Catron
Grant
Hidalgo
Los Alamos
Rio Arriba
Sandoval
Sante Fe
Sierra
Socorro
Taos
Torrance
Valencia

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[1] These include counties, city-county consolidations, and independent cities. In the case of Alaska, the political jurisdictions are election districts, and, in the case of Hawaii, the political jurisdiction listed is the island of Hawaii.

UTAH

Beaver
Box Elder
Cache
Carbon
Davis
Duchesne
Emery
Garfield
Iron
Juab
Millard
Morgan
Piute
Rich
Salt Lake
Sanpete
Sevier
Summit
Tooele
Utah
Wasatch
Washington
Wayne
Weber

WASHINGTON

Chelan
Clallam
Clark
Cowlitz
Douglas
Ferry
Grant
Grays Harbor
Jefferson
King
Kitsap
Kittitas
Lewis
Mason
Okanogan
Pacific
Pierce
San Jua
Skagit
Skaman
Snohom
Thursto
Wahkia
Whatco
Yakima

WYOMING

Fremont
Lincoln
Park
Sublette
Teton
Uinta
Yellows
Park

[46 FR 57285, Nov. 23, 1981; 47
8, 1982]

APPENDICES VII—APPEN
[RESERVED]

APPENDIX IX—GROUND-WATER MONITORING LIST [1]

GROUND-WATER MONITORING LIST [1]

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetophenone	98-86-2	Ethanone, 1-phenyl-
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro- (1α,4α,4aβ,5α,8α,8aβ)-
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4-amine
Aniline	62-53-3	Benzenamine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Aramite	140-57-8	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester.
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium
Benzene	71-43-2	Benzene
Benzo[a]anthracene; Benzanthracene.	56-55-3	Benz[a]anthracene
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]	Suggested methods [5]	PQL (μg/L) [6]
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene	8100 8270	200 10
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100 8270	200 10
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100 8270	200 10
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20
Beryllium	(Total)	Beryllium	6010 7090 7091	3 50 2
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2α,3β,4α,5β,6β)-	8080 8250	0.05 10
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2β,3α,4β,5α,6β)-	8080 8250	0.05 40
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2α,3α,4β,5α,6β)-	8080 8250	0.1 30
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2α,3β,4α,5α,6β)-	8080 8250	0.05 10
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1′-[methylenebis (oxy)]bis[2-chloro-	8270	10
Bis(2-chloroethyl)ether	111-44-4	Ethane, 1,1′-oxybis[2-chloro-	8270	10
Bis(2-chloro-1-methylethyl) ether; 2,2′-Di- chlorodiisopropyl ether.	108-60-1	Propane, 2,2′-oxybis[1-chloro-	8010 8270	100 10
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester.	8060 8270	20 10
Bromodichloromethane	75-27-4	Methane, bromodichloro-	8010 8240	1 5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010 8240	2 5
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-	8270	10
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester.	8060 8270	5 10
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 1
Carbon disulfide	75-15-0	Carbon disulfide	8240	5
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8240	1 5
Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-.	8080 8250	0.1 10
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-	8270	20
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020 8240	2 2 5
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro-α-(4-chlorophenyl)-α-hydroxy-, ethyl ester.	8270	10
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-	8040 8270	5 20
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8240	5 10
Chloroform	67-66-3	Methane, trichloro-	8010 8240	0.5 5
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8120 8270	10 10
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040 8270	5 10
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8270	10
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8010 8240	50 5
Chromium	(Total)	Chromium	6010 7190 7191	70 500 10
Chrysene	218-01-9	Chrysene	8100 8270	200 10
Cobalt	(Total)	Cobalt	6010	70

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]	Sug gest met ods
			72 72
Copper	(Total)	Copper	60 72
m-Cresol	108-39-4	Phenol, 3-methyl-	82
o-Cresol	95-48-7	Phenol, 2-methyl-	82
p-Cresol	106-44-5	Phenol, 4-methyl-	82
Cyanide	57-12-5	Cyanide	90
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-	81
4,4′-DDD	72-54-8	Benzene 1,1′-(2,2-dichloroethylidene)bis[4-chloro-	80 82
4,4′-DDE	72-55-9	Benzene, 1,1′-(dichloroethenylidene)bis[4-chloro-	80 82
4,4′-DDT	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-chloro-.	80 82
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)- , S- (2,3-dichloro-2-propenyl) ester.	82
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene	81 82
Dibenzofuran	132-64-9	Dibenzofuran	82
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-	80 82
1,2-Dibromo-3-chloropropane; DBCP.	96-12-8	Propane, 1,2-dibromo-3-chloro-	80 82 82
1,2-Dibromoethane; Ethylene dibromide.	106-93-4	Ethane, 1,2-dibromo-	80 82
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	80 82
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	80 80 81 82
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-	80 80 81 82
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	80 80 81 82
3,3′-Dichlorobenzidine	91-94-1	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro-	82
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	82
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-	80 82
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-	80 82
1,2-Dichloroethane; Ethylene dichloride.	107-06-2	Ethane, 1,2-dichloro-	80 82
1,1-Dichloroethylene; Vinylidene chloride.	75-35-4	Ethene, 1,1-dichloro-	80 82
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-, (E)-	80 82
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	80 82
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	82
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-	80 82
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-	80 82
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-	80 82
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα,2β,2aα,3β,6β,6aα,7β,7aα)-	80 82
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	80 82

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]	Suggested methods [5]	PQL (μg/L) [6]
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.	8270	10
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester.	8270	10
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	8270	10
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-	8270	10
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	8270	10
alpha, alpha-Dimethylphenethylamine.	122-09-8	Benzeneethanamine, α,α-dimethyl-	8270	10
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-	8040 8270	5 10
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 10
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	10
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-	8040 8270	150 50
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	150 50
2,4-Dinitrotoluene.	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	8150 8270	1 10
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060 8270	30 10
1,4-Dioxane	123-91-1	1,4-Dioxane	8015	150
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	10
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	8140 8270	2 10
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aβ,6α,9α,9aβ)-.	8080 8250	0.1 10
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aα,6β,9β,9aα)-	8080	0.05
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide.	8080 8270	0.5 10
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα, 2β,2aβ,3α,6α, 6aβ,7β,7aα)-	8080 8250	0.1 10
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd]pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-, (1α,2β,2aβ,4β,4aβ,5β,6aβ,6bβ,7R*)-	8080 8270	0.2 10
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8240	2 5
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015 8240 8270	10 5 10
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	10
Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl]-O,O-dimethyl ester.	8270	10
Fluoranthene	206-44-0	Fluoranthene	8100 8270	200 10
Fluorene	86-73-7	9H-Fluorene	8100 8270	200 10
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	8080 8270	0.05 10
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a,-hexahydro-, (1aα,1bβ,2α,5α,5aβ,6β,6aα)	8080 8270	1 10
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120 8270	0.5 10
Hexachlorobutadiene	87-68-3	1,3 Butadiene, 1,1,2,3,4,4-hexachloro-	8120 8270	5 10

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]
Hexachlorocyclopentadiene	77–47–4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
Hexachloroethane	67–72–1	Ethane, hexachloro-
Hexachlorophene	70–30–4	Phenol, 2,2′-methylenebis[3,4,6-trichloro-
Hexachloropropene	1888–71–7	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	591–78–6	2-Hexanone
Indeno(1,2,3-cd)pyrene	193–39–5	Indeno[1,2,3-cd]pyrene
Isobutyl alcohol	78–83–1	1-Propanol, 2-methyl-
Isodrin	465–73–6	1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a hexahydro-(1α,4α,4aβ,5β,8β,8aβ)-.
Isophorone	78–59–1	2-Cyclohexen-1-one, 3,5,5-trimethyl-
Isosafrole	120–58–1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143–50–0	1,3,4-Metheno-2H-cyclobuta- [cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126–98–7	2-Propenenitrile, 2-methyl-
Methapyrilene	91–80–5	1,2,Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-.
Methoxychlor	72–43–5	Benzene, 1,1′-(2,2,2,trichloroethylidene)bis[4-methoxy-.
Methyl bromide; Bromomethane	74–83–9	Methane, bromo-
Methyl chloride; Chloromethane	74–87–3	Methane, chloro-
3-Methylcholanthrene	56–49–5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
Methylene bromide; Dibromomethane.	74–95–3	Methane, dibromo-
Methylene chloride; Dichloromethane.	75–09–2	Methane, dichloro-
Methyl ethyl ketone; MEK	78–93–3	2-Butanone
Methyl iodide; Iodomethane	74–88–4	Methane, iodo-
Methyl methacrylate	80–62–6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66–27–3	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	91–57–6	Naphthalene, 2-methyl-
Methyl parathion; Parathion methyl	298–00–0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester.
4-Methyl-2-pentanone; Methyl isobutyl ketone.	108–10–1	2-Pentanone, 4-methyl-
Naphthalene	91–20–3	Naphthalene
1,4-Naphthoquinone	130–15–4	1,4-Naphthalenedione
1-Naphthylamine	134–32–7	1-Naphthalenamine
2-Naphthylamine	91–59–8	2-Naphthalenamine
Nickel	(Total)	Nickel
o-Nitroaniline	88–74–4	Benzenamine, 2-nitro-
m-Nitroaniline	99–09–2	Benzenamine, 3-nitro-
p-Nitroaniline	100–01–6	Benzenamine, 4-nitro-
Nitrobenzene	98–95–3	Benzene, nitro-
o-Nitrophenol	88–75–5	Phenol, 2-nitro-
p-Nitrophenol	100–02–7	Phenol, 4-nitro-
4-Nitroquinoline 1-oxide	56–57–5	Quinoline, 4-nitro-, 1-oxide
N-Nitrosodi-n-butylamine	924–16–3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55–18–5	Ethanamine, N-ethyl-N-nitroso-

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]	Suggested methods [5]	PQL (μg/L) [6]
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-	8270	10
N-Nitrosodipropylamine; Di-n-propylnitrosamine.	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8270	10
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-	8270	10
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-	8270	10
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	10
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-	8270	10
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	8270	10
Polychlorinated biphenyls; PCBs	See Note 7	1,1′-Biphenyl, chloro derivatives	8080	50
			8250	100
Polychlorinated dibenzo-p-dioxins; PCDDs.	See Note 8	Dibenzo[b,e][1,4]dioxin, chloro derivatives	8280	0.01
Polychlorinated dibenzofurans; PCDFs.	See Note 9	Dibenzofuran, chloro derivatives	8280	0.01
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloroethane	76-01-7	Ethane, pentachloro-	8240	5
			8270	10
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-	8270	10
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040	5
			8270	50
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	10
Phenanthrene	85-01-8	Phenanthrene	8100	200
			8270	10
Phenol	108-95-2	Phenol	8040	1
			8270	10
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8270	10
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	8140	2
			8270	10
2-Picoline	109-06-8	Pyridine, 2-methyl-	8240	5
			8270	10
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-.	8270	10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015	60
			8240	5
Pyrene	129-00-0	Pyrene	8100	200
			8270	10
Pyridine	110-86-1	Pyridine	8240	5
			8270	10
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	8270	10
Selenium	(Total)	Selenium	6010	750
			7740	20
			7741	20
Silver	(Total)	Silver	6010	70
			7760	100
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	8150	2
Styrene	100-42-5	Benzene, ethenyl-	8020	1
			8240	5
Sulfide	18496-25-8	Sulfide	9030	10,000
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid.	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	8150	2
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	8280	0.005
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010	5
			8240	5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010	0.5
			8240	5
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene.	127-18-4	Ethene, tetrachloro-	8010	0.5
			8240	5
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-	8270	10
Tetraethyl dithiopyrophosphate; Sulfotepp.	3689-24-5	Thiodiphosphoric acid ($[(HO)_2P(S)]_2O$), tetraethyl ester	8270	10
Thallium	(Total)	Thallium	6010	400
			7840	1,000
			7841	10

GROUND-WATER MONITORING LIST [1]—Continued

Common name [2]	CAS RN [3]	Chemical abstracts service index name [4]
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-
o-Toluidine	95-53-4	Benzenamine, 2-methyl-
Toxaphene	8001-35-2	Toxaphene
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methylchloroform.	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride	75-01-4	Ethene, chloro-
Xylene (total)	1330-20-7	Benzene, dimethyl-
Zinc	(Total)	Zinc

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[1] The regulatory requirements pertain only to the list of substances; the right hand columns (Methods an informational purposes only. See also footnotes 5 and 6.

[2] Common names are those widely used in government regulations, scientific publications, and comme for many chemicals.

[3] Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground wa element are included.

[4] CAS index names are those used in the 9th Cumulative Index.

[5] Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods Waste", third edition, November 1986. Analytical details can be found in SW-846 and in documentation c CAUTION: The methods listed are representative SW-846 procedures and may not always be the most s monitoring an analyte under the regulations.

[6] Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in ground waters determined within specified limits of precision and accuracy by the indicated methods under routine conditions. The PQLs listed are generally stated to one significant figure. CAUTION: The PQL values in ma only on a general estimate for the method and not on a determination for individual compounds; PQLs a regulation.

[7] Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, inclu Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141- (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Ar 11096-82-5). The PQL shown is an average value for PCB congeners.

[8] This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-T benzo-p-dioxins, and hexachlorodibenzo-p-dioxins. The PQL shown is an average value for PCDD congene

[9] This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofura dibenzofurans. The PQL shown is an average value for PCDF congeners.

[52 FR 25947, July 9, 1987]

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

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APPENDIX III—EPA INTERIM PRIMARY DRINKING WATER STANDARDS
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APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6924, 6925, and 6935.

SOURCE: 45 FR 33232, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: The reporting or recordkeeping provisions included in the final rule published at 47 FR 32274, July 26, 1982, will be submitted for approval to the Office of Management and Budget and will not become effective until OMB approval has been obtained. EPA will publish a notice in the FEDERAL REGISTER after it obtains OMB approval.

Subpart A—General

§ 265.1 Purpose, scope, and applicability.

(a) The purpose of this part is to establish minimum national standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) The standards of this part apply to owners and operators of facilities that treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under section 3005(e) of RCRA and § 270.10 of this chapter until either a permit is issued under section 3005 of RCRA or until applicable Part 265 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by section 3010(a) of RCRA and/or failed to file Part A of the permit application as required by 40 CFR 270.10 (e) and (g). These standards apply to all treatment, storage and disposal of hazardous waste at these facilities after the effective date of these regulations, except as specifically provided otherwise in this part or Part 261 of this chapter.

[*Comment:* As stated in section 3005(a) of RCRA, after the effective date of regulations under that section (i.e., Parts 270 and 124 of this chapter), the treatment, storage and disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility that meets certain conditions, until final administrative disposition of the owner's and operator's permit application is made.]

(c) The requirements of this part do not apply to:

(1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act;

[*Comment:* These Part 265 regulations do apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in paragraph (b) of this section.]

(2) [Reserved]

(3) The owner or operator of a POTW which treats, stores, or disposes of hazardous waste;

[*Comment:* The owner or operator of a facility under paragraphs (c)(1) through (3) of this section is subject to the requirements of Part 264 of this chapter to the extent they are included in a permit by rule granted to such a person under Part 122 of this chapter, or are required by § 144.14 of this chapter.]

(4) A person who treats, stores, or disposes of hazardous waste in a State with a RCRA hazardous waste program authorized under Subpart A or B of Part 271 of this chapter, except that the requirements of this part will continue to apply:

(i) As stated in paragraph (c)(2) of this section, if the authorized State RCRA program does not cover disposal of hazardous waste by means of underground injection; or

(ii) To a person who treats, stores, or disposes of hazardous waste in a State authorized under Subpart A or B of Part 271 of this chapter if the State has not been authorized to carry out the requirements and prohibitions applicable to the treatment, storage, or disposal of hazardous waste at his facility which are imposed pursuant to the Hazardous and Solid Waste Act Amendments of 1984. The requirements and prohibitions that are applicable until a State receives authorization to carry them out include all Federal program requirements identified in § 271.1(j);

(5) The owner or operator of a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this part by § 261.5 of this chapter;

(6) The owner and operator of a facility managing recyclable materials described in § 261.6 (a) (2) and (3) of this chapter (except to the extent that requirements of this part are referred to in Subparts C, D, F, or G of Part 266 of this chapter).

(7) A generator accumulating waste on-site in compliance with § 262.34 of this chapter, except to the extent the requirements are included in § 262.34 of this chapter;

(8) A farmer disposing of waste pesticides from his own use in compliance with § 262.70 of this chapter; or

(9) The owner or operator of a totally enclosed treatment facility, as defined in § 260.10.

(10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in § 260.10 of this chapter.

(11)(i) Except as provided in paragraph (c)(11)(ii) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of a hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this part must comply with all applicable requirements of Subparts C and D.

(iii) Any person who is covered by paragraph (c)(11)(i) of this section and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and Parts 122 through 124 of this chapter for those activities.

(12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less.

(13) The addition of absorbent material to waste in a container (as defined in § 260.10 of this chapter) or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and §§ 265.17(b), 265.171, and 265.172 are complied with.

(d) The following hazardous wastes must not be managed at facilities subject to regulation under this part.

(1) EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, or FO27 unless:

(i) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) The waste is stored in tanks or containers;

(iii) The waste is stored or treated in waste piles that meet the requirements of § 264.250(c) as well as all other applicable requirements of Subpart L of this part;

(iv) The waste is burned in incinerators that are certified pursuant to the standards and procedures in § 265.352; or

(v) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in § 265.383.

(e) The requirements of this part apply to owners or operators of all facilites which treat, store or dispose of hazardous waste referred to in Part 268.

[45 FR 33232, May 19, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 265.1, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§§ 265.2—265.3 [Reserved]

§ 265.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to section 7003 of RCRA.

Subpart B—General Facility Standards

§ 265.10 Applicability

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.11 Identification number.

Every facility owner or operator must apply to EPA for an EPA identification number in accordance with the EPA notification procedures (45 FR 12746).

§ 265.12 Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date of the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this part and Part 270 of this chapter. (Also see § 270.72 of this chapter.)

[*Comment:* An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.]

(Approved by the Office of Management and Budget under control number 2050-0013)

[45 FR 33232, May 19, 1980, as amended at 48 FR 14295, Apr. 1, 1983; 50 FR 4514, Jan. 31, 1985]

§ 265.13 General waste analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of this part and Part 268 of this chapter.

(2) The analysis may include data developed under Part 261 of this chapter, and existing published or documented data on the hazardous waste or on waste generated from similar processes.

[*Comment:* For example, the facility's record of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by paragraph (a)(1) of this section. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

(3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(ii) For off-site facilities, when the results of the inspection required in paragraph (a)(4) of this section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a) of this section. He must keep this plan at the facility. At a minimum, the plan must specify:

(1) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with paragraph (a) of this section);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Appendix I of Part 261 of this chapter; or

(ii) An equivalent sampling method.

[*Comment:* See § 260.20(c) of this chapter for related discussion.]

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 265.193, 265.225, 265.252, 265.273, 265.314, 265.341, 265.375, 265.402 and 268.7 of this chapter.

(7) For surface impoundments exempted from land disposal restrictions under § 268.4(a) of this chapter, the procedures and schedule for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and,

(iii) The annual removal of residues which are not delisted under § 260.22 of this chapter or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of Part 268, Subpart D; or

(B) Where no treatment standards have been established;

(*1*) Such residues are prohibited from land disposal under § 268.32 or RCRA section 3004(d); or

(*2*) Such residues are prohibited from land disposal under § 268.33(f).

(c) For off-site facilities, the waste analysis plan required in paragraph (b) of this section must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(Approved by the Office of Management and Budget under control number 2050-0012)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985; 50 FR 18374, Apr. 30, 1985; 51 FR 40638, Nov. 7, 1986; 52 FR 25788, July 8, 1987; 53 FR 31211, Aug. 17, 1988]

§ 265.14 Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, *unless:*

(1) Physical contact with the waste, structures, or equipment with the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this part.

(b) Unless exempt under paragraphs (a)(1) and (2) of this section, a facility must have:

(1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards of facility personnel)

which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

[*Comment:* The requirements of paragraph (b) of this section are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of paragraph (b)(1) or (2) of this section.]

(c) Unless exempt under paragraphs (a)(1) and (a)(2) of this section, a sign with the legend, "Danger—Unauthorized Personnel Keep Out," must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

[*Comment:* See § 265.117(b) for discussion of security requirements at disposal facilities during the post-closure care period.]

§ 265.15 General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to: (1) Release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He must keep this schedule at the facility.

(3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, or malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in §§ 265.174, 265.193, 265.195, 265.226, 265.347, 265.377, and 265.403.

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(Approved by the Office of Management and Budget under control number 2050-0013)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985; 51 FR 25478, July 14, 1986]

§ 265.16 Personnel training.

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this section.

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel must successfuly complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training racords may accompany personnel transferred within the same company.

(Approved by the Office of Management and Budget under control number 2050-0013)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.17 General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this part, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

(1) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility containing the waste; or

(5) Through other like means threaten human health or the environment.

§ 265.18 Location standards.

The placement of any hazardous waste in a salt dome, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New Mexico.

[50 FR 28749, July 15, 1985]

Subpart C—Preparedness and Prevention

§ 265.30 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.31 Maintenance and operation of facility.

Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

§ 265.32 Required equipment.

All facilities must be equipped with the following, *unless* none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

§ 265.33 Testing and maintenance of equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

§ 265.34 Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, *unless* such a device is not required under § 265.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, *unless* such a device is not required under § 265.32.

§ 265.35 Required aisle space.

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, *unless* aisle space is not needed for any of these purposes.

§ 265.36 [Reserved]

§ 265.37 Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

Subpart D—Contingency Plan and Emergency Procedures

§ 265.50 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(Approved by the Office of Management and Budget under control number 2050-0002)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.52 Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with §§ 265.51 and 265.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 of this chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.

(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to § 265.37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see § 265.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(Approved by the Office of Management and Budget under control number 2050-0002)

[45 FR 33232, May 19, 1980, as amended at 46 FR 27480, May 20, 1981; 50 FR 4514, Jan. 31, 1985]

§ 265.53 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(Approved by the Office of Management and Budget under control number 2050-0002)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.54 Amendment of contingency plan.

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

(Approved by the Office of Management and Budget under control number 2050-0002)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.55 Emergency coordinator.

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

[*Comment:* The emergency coordinator's responsibilities are more fully spelled out in § 265.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.]

§ 265.56 Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and a real extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 1510 of this title), or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

[*Comment:* Unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

(Approved by the Office of Management and Budget under control number 2050-0002)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

Subpart E—Manifest System, Recordkeeping, and Reporting

§ 265.70 Applicability.

The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 265.1 provides otherwise. Sections 265.71, 265.72, and 265.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

§ 265.71 Use of manifest system.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest (as defined in § 265.72(a)) on each copy of the manifest;

[*Comment*: The Agency does not intend that the owner or operator of a facility whose procedures under § 265.13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Section 265.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in § 265.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

[*Comment:* The Agency does not intend that the owner or operator of a facility whose procedures under § 265.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 265.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

[*Comment:* Section 262.23(c) of this chapter requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).]

(5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of Part 262 of this chapter.

[*Comment:* The provisions of § 262.34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.]

(Approved by the Office of Management and Budget under control number 2050-0039)

[45 FR 33232, May 19, 1980, as amended at 45 FR 86970, 86974, Dec. 31, 1980; 50 FR 4514, Jan. 31, 1985]

§ 265.72 Manifest discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) For bulk waste, variations greater than 10 percent in weight, and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(Approved by the Office of Management and Budget under control number 2050-0039)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.73 Operating record.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

[*Comment:* See §§ 265.119, 265.279, and 265.309 for related requirements.]

(3) Records and results of waste analysis and trial tests performed as specified in §§ 265.13, 265.193, 265.225, 265.252, 265.273, 265.314, 265.341, 265.375, 265.402, 268.4(a) and 268.7 of this chapter.

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in § 265.56(j);

(5) Records and results of inspections as required by § 265.15(d) (except these data need be kept only three years);

(6) Monitoring, testing, or analytical data when required by §§ 265.90, 265.94, 265.191, 265.193, 265.195, 265.276, 265.278, 265.280(d)(1), 265.347, and 265.377; and

[*Comment:* As required by § 265.94, monitoring data at disposal facilities must be kept throughout the post-closure period.]

(7) All closure cost estimates under § 265.142 and, for disposal facilities, all post-closure cost estimates under § 265.144.

(8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to § 268.5, monitoring data required pursuant to a petition under § 268.6, or a certification under § 268.8, and the applicable notice required by a generator under § 268.7(a).

(9) For an off-site treatment facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8;

(10) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8;

(11) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under § 268.7 or § 268.8;

(12) For an on-site land disposal facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under § 268.7 or § 268.8.

(13) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8; and

(14) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under § 268.7 or § 268.8.

(Approved by Office of Management and Budget under control numbers 2050-0038, and 2040-0042)

[45 FR 33232, May 19, 1980, as amended at 46 FR 7680, Jan. 23, 1981; 50 FR 4514, Jan. 31, 1985; 50 FR 18374, Apr. 30, 1985; 51 FR 25479, July 14, 1986; 51 FR 40638, Nov. 7, 1986; 53 FR 31211, Aug. 17, 1988; 54 FR 26648, June 23, 1989]

§ 265.74 Availability, retention, and disposition of records.

(a) All records, including plans, required under this part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator.

(b) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator.

(c) A copy of records of waste disposal locations and quantities under § 265.73(b)(2) must be submitted to the Regional Administrator and local land authority upon closure of the facility (see § 265.119).

(Approved by the Office of Management and Budget under control number 2050-0013)

[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.75 Biennial report.

The owner or operator must prepare and submit a single copy of a biennial report to the Regional Administrator by March 1 of each even numbered year. The biennial report must be submitted on EPA Form 8700-13B. The report must cover facility activities during the previous calendar year and must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) Monitoring data under § 265.94(a)(2)(ii) and (iii), and (b)(2), where required;

(g) The most recent closure cost estimate under § 265.142, and, for disposal facilities, the most recent post-closure cost estimate under § 265.144; and

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

(j) The certification signed by the owner or operator of the facility or his authorized representative.

(Approved by the Office of Management and Budget under control number 2050-0024)

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983; 50 FR 4514, Jan. 31, 1985; 51 FR 28556, Aug. 8, 1986]

§ 265.76 Unmanifested waste report.

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in § 263.20(e)(2) of this chapter, and if the waste is not excluded from the manifest requirement by § 261.5 of this chapter, then the owner or operator must prepare and submit a single copy of a report to the Regional Administrator within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated 'Unmanifested Waste Report' and include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste the facility received;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

[*Comment:* Small quantities of hazardous waste are excluded from regulation under this part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the Agency suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the Agency suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.]

(Approved by the Office of Management and Budget under control number 2050-0013)

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983; 50 FR 4514, Jan. 31, 1985]

§ 265.77 Additional reports.

In addition to submitting the biennial report and unmanifested waste reports described in §§ 265.75 and 265.76, the owner or operator must also report to the Regional Administrator:

(a) Releases, fires, and explosions as specified in § 265.56(j);

(b) Ground-water contamination and monitoring data as specified in §§ 265.93 and 265.94; and

(c) Facility closure as specified in § 265.115.

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

Subpart F—Ground-Water Monitoring

§ 265.90 Applicability.

(a) Within one year after the effective date of these regulations, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a ground-water monitoring program capable of determining the facility's impact on the quality of ground water in the uppermost aquifer underlying the facility, except as § 265.1 and paragraph (c) of this section provide otherwise.

(b) Except as paragraphs (c) and (d) of this section provide otherwise, the owner or operator must install, operate, and maintain a ground-water monitoring system which meets the requirements of § 265.91, and must comply with §§ 265.92 through 265.94. This ground-water monitoring program must be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the ground-water monitoring requirements of this subpart may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing, and must be kept at the facility. This demonstration must be certified by a qualified geologist or geotechnical engineer and must establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(ii) Unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics (i.e., geologic materials, physical properties, and rate of ground-water flow); and

(ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that ground-water monitoring of indicator parameters in accordance with §§ 265.91 and 265.92 would show statistically significant increases (or decreases in the case of pH) when evaluated under § 265.93(b), he may, install, operate, and maintain an alternate ground-water monitoring system (other than the one described in §§ 265.91 and 265.92). If the owner or operator decides to use an alternate ground-water monitoring system he must:

(1) Within one year after the effective date of these regulations, submit to the Regional Administrator a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of § 265.93(d)(3), for an alternate ground-water monitoring system;

(2) Not later than one year after the effective date of these regulations, initiate the determinations specified in § 265.93(d)(4);

(3) Prepare and submit a written report in accordance with § 265.93(d)(5);

(4) Continue to make the determinations specified in § 265.93(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in § 265.94(b).

(e) The ground-water monitoring requirements of this subpart may be waived with respect to any surface impoundment that (1) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under § 261.22 of this chapter or are listed as hazardous wastes in Subpart D of Part 261 of this chapter only for this reason, and (2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

(Approved by the Office of Management and Budget under control number 2050-0033)

[45 FR 33232, May 19, 1980, as amended at 47 FR 1255, Jan. 11, 1982; 50 FR 4514, Jan. 31, 1985]

§ 265.91 Ground-water monitoring system.

(a) A ground-water monitoring system must be capable of yielding ground-water samples for analysis and must consist of:

(1) Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield ground-water samples that are:

(i) Representative of background ground-water quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility; and

(2) Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(b) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g., cement grout or bentonite slurry) to prevent contamination of samples and the ground water.

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[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.92 Sampling and analysis.

(a) The owner or operator must obtain and analyze samples from the installed ground-water monitoring system. The owner or operator must develop and follow a ground-water sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

[*Comment:* See "Procedures Manual For Ground-water Monitoring At Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussions of sampling and analysis procedures.]

(b) The owner or operator must determine the concentration or value of the following parameters in ground-water samples in accordance with paragraphs (c) and (d) of this section:

(1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix III.

(2) Parameters establishing ground-water quality:

(i) Chloride

(ii) Iron

(iii) Manganese

(iv) Phenols

(v) Sodium

(vi) Sulfate

[*Comment:* These parameters are to be used as a basis for comparison in the event a ground-water quality assessment is required under § 265.93(d).]

(3) Parameters used as indicators of ground-water contamination:

(i) pH

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(ii) Specific Conductance

(iii) Total Organic Carbon

(iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in paragraph (b) of this section. He must do this quarterly for one year.

(2) For each of the indicator parameters specified in paragraph (b)(3) of this section, at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

(1) Samples collected to establish ground-water quality must be obtained and analyzed for the parameters specified in paragraph (b)(2) of this section at least annually.

(2) Samples collected to indicate ground-water contamination must be obtained and analyzed for the parameters specified in paragraph (b)(3) of this section at least semi-annually.

(e) Elevation of the ground-water surface at each monitoring well must be determined each time a sample is obtained.

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[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.93 Preparation, evaluation, and response.

(a) Within one year after the effective date of these regulations, the owner or operator must prepare an *outline* of a ground-water quality assessment program. The outline must describe a more comprehensive ground-water monitoring program (than that described in §§ 265.91 and 265.92) capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have entered the ground water;

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water; and

(3) The concentrations of hazardous waste or hazardous waste constituents in the ground water.

(b) For each indicator parameter specified in § 265.92(b)(3), the owner or operator must calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with § 265.92(d)(2), and compare these results with its initial background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance (see Appendix IV) to determine statistically significant increases (and decreases, in the case of pH) over initial background.

(c)(1) If the comparisons for the *upgradient* wells made under paragraph (b) of this section show a significant increase (or pH decrease), the owner or operator must submit this information in accordance with § 265.94(a)(2)(ii).

(2) If the comparisons for *downgradient* wells made under paragraph (b) of this section show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional ground-water samples from those downgradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d)(1) If the analyses performed under paragraph (c)(2) of this section confirm the significant increase (or pH decrease), the owner or operator must provide written notice to the Regional Administrator—within seven days of the date of such confirmation—that the facility may be affecting ground-water quality.

(2) Within 15 days after the notification under paragraph (d)(1) of this section, the owner or operator must develop and submit to the Regional Administrator a specific plan, based on the outline required under paragraph (a) of this section and certified by a

qualified geologist or geotechnical engineer, for a ground-water quality assessment program at the facility.

(3) The plan to be submitted under § 265.90(d)(1) or paragraph (d)(2) of this section must specify:

(i) The number, location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously-gathered ground-water quality information; and

(iv) A schedule of implementation.

(4) The owner or operator must implement the ground-water quality assessment plan which satisfies the requirements of paragraph (d)(3) of this section, and, at a minimum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.

(5) The owner or operator must make his first determination under paragraph (d)(4) of this section as soon as technically feasible, and, within 15 days after that determination, submit to the Regional Administrator a written report containing an assessment of the ground-water quality.

(6) If the owner or operator determines, based on the results of the first determination under paragraph (d)(4) of this section, that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in § 265.92 and paragraph (b) of this section. If the owner or operator reinstates the indicator evaluation program, he must so notify the Regional Administrator in the report submitted under paragraph (d)(5) of this section.

(7) If the owner or operator determines, based on the first determination under paragraph (d)(4) of this section, that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:

(i) Must continue to make the determinations required under paragraph (d)(4) of this section on a quarterly basis until final closure of the facility, if the ground-water quality assessment plan was implemented prior to final closure of the facility; or

(ii) May cease to make the determinations required under paragraph (d)(4) of this section, if the ground-water quality assessment plan was implemented during the post-closure care period.

(e) Notwithstanding any other provision of this subpart, any ground-water quality assessment to satisfy the requirements of § 265.93(d)(4) which is initiated prior to final closure of the facility must be completed and reported in accordance with § 265.93(d)(5).

(f) Unless the ground water is monitored to satisfy the requirements of § 265.93(d)(4), at least annually the owner or operator must evaluate the data on ground-water surface elevations obtained under § 265.92(e) to determine whether the requirements under § 265.91(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that § 265.91(a) is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement.

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[45 FR 33232, May 19, 1980, as amended at 50 FR 4514, Jan. 31, 1985]

§ 265.94 Recordkeeping and reporting.

(a) Unless the ground water is monitored to satisfy the requirements of § 265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses required in § 265.92(c) and (d), the associated ground-water surface elevations required in § 265.92(e), and the evaluations required in § 265.93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following ground-water monitoring information to the Regional Administrator:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in § 265.92(b)(1) for each ground-water monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III.

(ii) Annually: Concentrations or values of the parameters listed in § 265.92(b)(3) for each ground-water monitoring well, along with the required evaluations for these parameters under § 265.93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with § 265.93(c)(1). During the active life of the facility, this information must be submitted no later than March 1 following each calendar year.

(iii) No later than March 1 following each calendar year: Results of the evaluations of ground-water surface elevations under § 265.93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of § 265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of § 265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Regional Administrator a report containing the results of his or her ground-water quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This information must be submitted no later than March 1 following each calendar year.

(Approved by the Office of Management and Budget under control number 2050-0033)

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983; 50 FR 4514, Jan. 31, 1985]

Subpart G—Closure and Post-Closure

SOURCE: 51 FR 16451, May 2, 1986, unless otherwise noted.

§ 265.110 Applicability.

Except as § 265.1 provides otherwise:

(a) Sections 265.111 through 265.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 265.116 through 265.120 (which concern post-closure care) apply to the owners and operators of:

(1) All hazardous waste disposal facilities; and

(2) Waste piles and surface impoundments for which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in § 265.228 or § 265.258; and

(3) Tank systems that are required under § 265.197 to meet requirements for landfills.

[51 FR 16451, May 2, 1986, as amended at 51 FR 25479, July 14, 1986; 53 FR 34086, Sept. 2, 1988]

§ 265.111 Closure performance standard.

The owner or operator must close the facility in a manner that:

(a) Minimizes the need for further maintenance, and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and

(c) Complies with the closure requirements of this subpart including, but not limited to, the requirements of §§ 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381 and 265.404.

§ 265.112 Closure plan; amendment of plan.

(a) *Written plan.* By May 19, 1981, the owner or operator of a hazardous waste management facility must have a written closure plan. Until final closure is completed and certified in accordance with § 265.115, a copy of the most current plan must be furnished to the Regional Administrator upon request, including request by mail. In addition, for facilities without approved plans, it must also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Agency who is duly designated by the Administrator.

(b) *Content of plan.* The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

(1) A description of how each hazardous waste management unit at the facility will be closed in accordance with § 265.111; and

(2) A description of how final closure of the facility will be conducted in accordance with § 265.111. The description must identify the maximum extent of the operation which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to methods for removing, transporting, treating, storing or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.); and

(7) An estimate of the expected year of final closure for facilities that use trust funds to demonstrate financial assurance under § 265.143 or § 265.145 and whose remaining operating life is less than twenty years, and for facilities without approved closure plans.

(c) *Amendment of plan.* The owner or operator may amend the closure plan at any time prior to the notification of partial or final closure of the facility. An owner or operator with an approved closure plan must submit a written request to the Regional Administrator to authorize a change to the approved closure plan. The written request must include a copy of the amended closure plan for approval by the Regional Administrator.

(1) The owner or operator must amend the closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the closure plan.

(2) The owner or operator must amend the closure plan at least 60 days prior to the proposed change in facility design or operation, or no later

than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must amend the closure plan no later than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure, but are required to close as landfills in accordance with § 265.310.

(3) An owner or operator with an approved closure plan must submit the modified plan to the Regional Administrator at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event has occurred during the partial or final closure period, the owner or operator must submit the modified plan no more than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure but are required to close as landfills in accordance with § 265.310. If the amendment to the plan is a Class 2 or 3 modification according to the criteria in § 270.42, the modification to the plan will be approved according to the procedures in § 265.112(d)(4).

(4) The Regional Administrator may request modifications to the plan under the conditions described in paragraph (c)(1) of this section. An owner or operator with an approved closure plan must submit the modified plan within 60 days of the request from the Regional Administrator, or within 30 days if the unexpected event occurs during partial or final closure. If the amendment is considered a Class 2 or 3 modification according to the criteria in § 270.42, the modification to the plan will be approved in accordance with the procedures in § 265.112(d)(4).

(d) *Notification of partial closure and final closure.* (1) The owner or operator must submit the closure plan to the Regional Administrator at least 180 days prior to the date on which he expects to begin closure of the first surface impoundment, waste pile, land treatment, or landfill unit, or final closure if it involves such a unit, whichever is earlier. The owner or operator must submit the closure plan to the Regional Administrator at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units. Owners or operators with approved closure plans must notify the Regional Administrator in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, landfill, or land treatment unit, or final closure of a facility involving such a unit. Owners and operators with approved closure plans must notify the Regional Administrator in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units.

(2) The date when he "expects to begin closure" must be either within 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the Regional Administrator that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements, the Regional Administrator may approve an extension to this one-year limit.

(3) The owner or operator must submit his closure plan to the Regional Administrator no later than 15 days after:

(i) Termination of interim status except when a permit is issued simultaneously with termination of interim status; or

(ii) Issuance of a judicial decree or final order under section 3008 of RCRA to cease receiving hazardous wastes or close.

(4) The Regional Administrator will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The Regional Administrator will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator does not approve the plan he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved closure plan. The Regional Administrator must assure that the approved plan is consistent with §§ 265.111 through 265.115 and the applicable requirements of §§ 265.90 *et seq.*, 265.197, 265.228, 265,258, 265.280, 265.310, 265.351, 265.381, and 265.404. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(e) *Removal of wastes and decontamination or dismantling of equipment.* Nothing in this section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

[51 FR 16451, May 2, 1986, as amended at 54 FR 37935, Sept. 28, 1988]

§ 265.113 Closure; time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes at a hazardous waste management unit or facility, or within 90 days after approval of the closure plan, whichever is later, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Regional Administrator may approve a longer period if the owner or operator demonstrates that:

(1)(i) The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

(B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements.

(b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes at the hazardous waste management unit or facility, or 180 days after approval of the closure plan, if that is later. The Regional Administrator may approve an extension to the closure period if the owner or operator demonstrates that:

(1) (i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii) (A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

(B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable interim status requirements.

(c) The demonstrations referred to in § 265.113(a) and (b) must be made as follows: (1) The demonstrations in paragraph (a) must be made at least 30 days prior to the expiration of the 90-day period in paragraph (a); and (2) the demonstrations in paragraph (b) must be made at least 30 days prior to the expiration of the 180-day period in paragraph (b).

§ 265.114 Disposal or decontamination of equipment, structures and soils.

During the partial and final closure periods, all contaminated equipment, structures and soil must be properly disposed of, or decontaminated unless specified otherwise in §§ 265.197, 265.228, 265.258, 265.280, or 265.310. By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that hazardous waste in accordance with all applicable requirements of Part 262 of this chapter.

[51 FR 16451, May 2, 1986, as amended at 53 FR 34086, Sept. 2, 1988]

§ 265.115 Certification of closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of completion of final closure, the owner or operator must submit to the Regional Administrator, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Regional Administrator upon request until he releases the owner or operator from the financial assurance requirements for closure under § 265.143(h).

§ 265.116 Survey plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, an owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Regional Administrator, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Subpart G regulations.

§ 265.117 Post-closure care and use of property.

(a)(1) Post-closure care for each hazardous waste management unit subject to the requirements of §§ 265.117 through 265.120 must begin after completion of closure of the unit and continue for 30 years after that date. It must consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, and N of this part; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, and N of this part.

(2) Any time preceding closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a

particular hazardous waste disposal unit, the Regional Administrator may:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground-water monitoring results, characteristics of the hazardous waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility, if he finds that the extended period is necessary to protect human health and the environment (e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(b) The Regional Administator may require, at partial and final closure, continuation of any of the security requirements of § 265.14 during part or all of the post-closure period when:

(1) Hazardous wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Regional Administrator finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in § 265.118.

§ 265.118 Post-closure plan; amendment of plan.

(a) *Written plan.* By May 19, 1981, the owner or operator of a hazardous waste disposal unit must have a written post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous wastes at closure must prepare a post-closure plan and submit it to the Regional Administrator within 90 days of the date that the owner or operator or Regional Administrator determines that the hazardous waste management unit or facility must be closed as a landfill, subject to the requirements of §§ 265.117 through 265.120.

(b) Until final closure of the facility, a copy of the most current post-closure plan must be furnished to the Regional Administrator upon request, including request by mail. In addition, for facilities without approved post-closure plans, it must also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Agency who is duly designated by the Administrator. After final closure has been certified, the person or office specified in § 265.118(c)(3) must keep the approved post-closure plan during the post-closure period.

(c) For each hazardous waste management unit subject to the requirements of this section, the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Subparts F, K, L, M, and N of this part during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subparts K, L, M, and N of this part; and

(ii) The function of the monitoring equipment in accordance with the requirements of Subparts F, K, L, M, and N of this part; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(d) *Amendment of plan.* The owner or operator may amend the post-closure plan any time during the active life of the facility or during the post-closure care period. An owner or operator with an approved post-closure plan must submit a written request to the Regional Administrator to authorize a change to the approved plan. The written request must include a copy of the amended post-closure plan for approval by the Regional Administrator.

(1) The owner or operator must amend the post-closure plan whenever:

(i) Changes in operating plans or facility design affect the post-closure plan, or

(ii) Events which occur during the active life of the facility, including partial and final closures, affect the post-closure plan.

(2) The owner or operator must amend the post-closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan.

(3) An owner or operator with an approved post-closure plan must submit the modified plan to the Regional Administrator at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the post-closure plan. If an owner or operator of a surface impoundment or a waste pile who intended to remove all hazardous wastes at closure in accordance with § 265.228(b) or § 265.258(a) is required to close as a landfill in accordance with § 265.310, the owner or operator must submit a post-closure plan within 90 days of the determination by the owner or operator or Regional Administrator that the unit must be closed as a landfill. If the amendment to the post-closure plan is a Class 2 or 3 modification according to the criteria in § 270.42, the modification to the plan will be approved according to the procedures in § 265.118(f).

(4) The Regional Administrator may request modifications to the plan under the conditions described in paragraph (d)(1) of this section. An owner or operator with an approved post-closure plan must submit the modified plan no later than 60 days of the request from the Regional Administrator. If the amendment to the plan is considered a Class 2 or 3 modification according to the criteria in § 270.42, the modifications to the postclosure plan will be approved in accordance with the procedures in § 265.118(f). If the Regional Administrator determines that an owner or operator of a surface impoundment or waste pile who intended to remove all hazardous wastes at closure must close the facility as a landfill, the owner or operator must submit a post-closure plan for approval to the Regional Administrator within 90 days of the determination.

(e) The owner or operator of a facility with hazardous waste management units subject to these requirements must submit his post-closure plan to the Regional Administrator at least 180 days before the date he expects to begin partial or final closure of the first hazardous waste disposal unit. The date he "expects to begin closure" of the first hazardous waste disposal unit must be either within 30 days after the date on which the hazardous waste management unit receives the known final volume of hazardous waste or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator must submit the post-closure plan to the Regional Administrator no later than 15 days after:

(1) Termination of interim status (except when a permit is issued to the

facility simultaneously with termination of interim status); or

(2) Issuance of a judicial decree or final orders under section 3008 of RCRA to cease receiving wastes or close.

(f) The Regional Administrator will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the post-closure plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a post-closure plan. The Regional Administrator will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator does not approve the plan he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved post-closure plan. The Regional Administrator must ensure that the approved post-closure plan is consistent with §§ 265.117 through 265.120. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(g) The post-closure plan and length of the post-closure care period may be modified any time prior to the end of the post-closure care period in either of the following two ways:

(1) The owner or operator or any member of the public may petition the Regional Administrator to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause, or alter the requirements of the post-closure care period based on cause.

(i) The petition must include evidence demonstrating that:

(A) The secure nature of the hazardous waste management unit or facility makes the post-closure care requirement(s) unnecessary or supports reduction of the post-closure care period specified in the current post-closure plan (e.g., leachate or ground-water monitoring results, characteristics of the wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the facility is secure), or

(B) The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment (e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(ii) These petitions will be considered by the Regional Administrator only when they present new and relevant information not previously considered by the Regional Administrator. Whenever the Regional Administrator is considering a petition, he will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Regional Administrator will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined.) After considering the comments, he will issue a final determination, based upon the criteria set forth in paragraph (g)(1) of this section.

(iii) If the Regional Administrator denies the petition, he will send the petitioner a brief written response giving a reason for the denial.

(2) The Regional Administrator may tentatively decide to modify the post-closure plan if he deems it necessary to prevent threats to human health and the environment. He may propose to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause or alter the requirements of the post-closure care period based on cause.

(i) The Regional Administrator will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in paragraph (g)(1)(ii) of this section. After considering the comments, he will issue a final determination.

(ii) The Regional Administrator will base his final determination upon the same criteria as required for petitions under paragraph (g)(1)(i) of this section. A modification of the post-closure plan may include, where appropriate, the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the Regional Administrator would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.

[51 FR 16451, May 2, 1986, as amended at 53 FR 37935, Sept. 28, 1988]

§ 265.119 Post-closure notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Regional Administrator, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:

(1) Record, in accordance with State law, a notation on the deed to the facility property—or on some other instrument which is normally examined during title search—that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under 40 CFR Subpart G regulations; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by §§ 265.116 and 265.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Regional Administrator; and

(2) Submit a certification signed by the owner or operator that he has recorded the notation specified in paragraph (b)(1) of this section and a copy of the document in which the notation has been placed, to the Regional Administrator.

(c) If the owner or operator or any subsequent owner of the land upon which a hazardous waste disposal unit was located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, and all contaminated structures, equipment, and soils, he must request a modification to the approved post-closure plan in accordance with the requirements of § 265.118(g). The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of § 265.117(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of this chapter. If the owner or operator is granted approval to conduct the removal activities, the owner or operator may request that the Regional Administrator approve either:

(1) The removal of the notation on the deed to the facility property or

other instrument normally examined during title search, or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

§ 265.120 Certification of completion of post-closure care.

No later than 60 days after the completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Regional Administrator, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Regional Administrator upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under § 265.145(h).

Subpart H—Financial Requirements

SOURCE: 47 FR 15064, Apr. 7, 1982, unless otherwise noted.

§ 265.140 Applicability.

(a) The requirements of §§ 265.142, 265.143 and 265.147 through 265.150 apply to owners or operators of all hazardous waste facilities, except as provided otherwise in this section or in § 265.1.

(b) The requirements of §§ 265.144 and 265.146 apply only to owners and operators of disposal facilities and tank systems that are required under § 265.197 to meet the requirements for landfills

(c) States and the Federal government are exempt from the requirements of this subpart.

[47 FR 15064, Apr. 7, 1982, as amended at 51 FR 16455, May 2, 1986; 51 FR 25479, July 14, 1986]

§ 265.141 Definitions of terms as used in this subpart.

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of § 265.112.

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with § 265.142 (a), (b), and (c).

(c) "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with § 265.144 (a), (b), and (c).

(d) "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of §§ 265.117 through 265.120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with § 144.62(a), (b), and (c) of this title.

"Independently audited' refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms "bodily injury" and "property damage" shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practice, are excluded from coverage in liability policies for bodily injury and property damage. The Agency intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

"Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

(h) "Substantial business relationship" means the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the applicable EPA Regional Administrator.

[47 FR 16558, Apr. 16, 1982, as amended at 51 FR 16456, May 2, 1986; 53 FR 33959, Sept. 1, 1988]

§ 265.142 Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 265.111 through 265.115 and applicable closure requirements of §§ 265.178, 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381 and 265.404.

(1) The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see § 265.112(b)); and

(2) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in § 265.141(d).) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized by the sale of hazardous wastes, facility structures or equipment, land or other facility assets at the time of partial or final closures.

(4) The owner or operator may not incorporate a zero cost for hazardous waste that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 265.143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Regional Administrator as specified in § 265.143(e)(3). The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its *Survey of Current Business*, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after a revision has been made to the closure plan which increases the cost of closure. If the owner or operator has an approved closure plan, the closure cost estimate must be revised no later than 30 days after the Regional Administrator has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in § 265.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with §§ 265.142 (a) and (c) and, when this estimate has been adjusted in accordance with § 265.142(b), the latest adjusted closure cost estimate.

(Approved by the Office of Management and Budget under control number 2050-0036)

[47 FR 15064, Apr. 7, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 51 FR 16456, May 2, 1986]

§ 265.143 Financial assurance for closure.

By the effective date of these regulations, an owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) *Closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current closure cost estimate, except as provided in § 265.143(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with § 265.143(h) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Regional Administrator does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(11) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(b) *Surety bond guaranteeing payment into a closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in § 265.143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Ad-

ministrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in § 265.143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so, the Regional Administrator may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has

decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(10) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(d) *Closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. By the effective date of these regulations the owner or operator must submit to the Regional Administrator a letter from an insurer stating that the insurer is considering issuance of closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Regional Administrator or establish other financial assurance as specified in this section. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in § 265.143(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Regional Administrator will instruct the insurer to make reimbursements in such amounts as the Regional Administrator specifies in writing if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with § 265.143(h), that the owner or operator is no longer required to maintain financial assurance for final closure of the particular facility. If the Regional Administrator does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administra-

tor consents to termination of the policy by the owner or operator as specified in paragraph (d)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(10) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(e) *Financial test and corporate guarantee for closure.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (e)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this title).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must con-

sist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (8) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 265.143(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for closure of the facility.

(g) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for final closure of the facility, unless the Regional Administrator has reason to believe that final closure has not been in accordance with the approved closure plan. The Regional Administrator shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

[47 FR 15064, Apr. 7, 1982, as amended at 51 FR 16456, May 2, 1986]

§ 265.144 Cost estimate for post-closure care.

(a) The owner or operator of a hazardous waste disposal unit must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in §§ 265.117 through 265.120, 265.228, 265.258, 265.280, and 265.310.

(1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor subsidiary of the owner or operator. (See definition of parent corporation in § 265.141(d).)

(2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under § 265.117.

(b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 265.145. For owners or operators using the financial test or corporate guarantee, the post-closure care cost estimate must be updated for inflation no later than 30 days after the close of the firm's fiscal year and before submission of updated information to the Regional Administrator as specified in § 265.145(d)(5).

The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its *Survey of Current Business* as specified in § 265.145 (b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the post-closure cost estimate no later than 30 days after a revision to the post-closure plan which increases the cost of post-closure care. If the owner or operator has an approved post-closure plan, the post-closure cost estimate must be revised no later than 30 days after the Regional Administrator has approved the request to modify the plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in § 265.144(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with § 265.144 (a) and (c) and, when this estimate has been adjusted in accordance with § 265.144(b), the latest adjusted post-closure cost estimate.

(Approved by the Office of Management and Budget under control number 2050-0036)

[47 FR 15064, Apr. 7, 1982, as amended at 50 FR 4514, Jan. 31, 1985; 51 FR 16457, May 2, 1986]

§ 265.145 Financial assurance for post-closure care.

By the effective date of these regulations, an owner or operator of a facility with a hazardous waste disposal unit must establish financial assurance for post-closure care of the disposal unit(s).

(a) *Post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a post-closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current post-closure cost estimate, except as provided in § 265.145(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) During the period of post-closure care, the Regional Administrator may approve a release of funds if the owner or operator demonstrates to the Regional Administrator that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure care activities, the Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Regional Administrator does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(12) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(b) *Surety bond guaranteeing payment into a post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in § 265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Post-closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in § 265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Regional Administrator may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may

delay the drawing if the issuing insti-
tution grants an extension of the term
of the credit. During the last 30 days
of any such extension the Regional
Administrator will draw on the letter
of credit if the owner or operator has
ailed to provide alternate financial as-
surance as specified in this section and
obtain written approval of such assur-
ance from the Regional Administrator.

(11) The Regional Administrator will
eturn the letter of credit to the issu-
ng institution for termination when:

(i) An owner or operator substitutes
lternate financial assurance as speci-
ied in this section; or

(ii) The Regional Administrator re-
eases the owner or operator from the
equirements of this section in accord-
nce with § 265.145(h).

(d) *Post-closure insurance.* (1) An
wner or operator may satisfy the re-
uirements of this section by obtain-
ng post-closure insurance which con-
orms to the requirements of this
aragraph and submitting a certificate
f such insurance to the Regional Ad-
inistrator. By the effective date of
hese regulations the owner or opera-
or must submit to the Regional Ad-
inistrator a letter from an insurer
tating that the insurer is considering
suance of post-closure insurance con-
orming to the requirements of this
aragraph to the owner or operator.
Vithin 90 days after the effective date
f these regulations, the owner or op-
rator must submit the certificate of
nsurance to the Regional Administra-
or or establish other financial assur-
nce as specified in this section. At a
inimum, the insurer must be licensed
o transact the business of insurance,
r eligible to provide insurance as an
xcess or surplus lines insurer, in one
r more States.

(2) The wording of the certificate of
nsurance must be identical to the
ording specified in § 264.151(e).

(3) The post-closure insurance policy
ust be issued for a face amount at
ast equal to the current post-closure
st estimate, except as provided in
265.145(f). The term "face amount"
eans the total amount the insurer is
bligated to pay under the policy.
ctual payments by the insurer will
ot change the face amount, although
e insurer's future liability will be
lowered by the amount of the payments.

(4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure care activities, the Regional Administrator will instruct the insurer to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Regional Administrator does not instruct the insurer to make such reimbursements, he will provide a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (d)(11) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in the section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy most contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon

consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amounts of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(e) *Financial test and corporate guarantee for post-closure care.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria either of paragraph (e)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this title).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and the current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's latest complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he

must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Regional Administrator may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Regional Administrator that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(11) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (9) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 265.145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for post-closure care of the facility.

(g) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed in accordance with the approved post-closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for post-closure care of that unit, unless the Regional Administrator has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Regional Administrator will provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

[47 FR 15064, Apr. 7, 1982, as amended at 51 FR 16457, May 2, 1986]

§ 265.146 Use of a mechanism for financial assurance of both closure and post-closure care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both §§ 265.143 and 265.145. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

§ 265.147 Liability requirements.

(a) *Coverage for sudden accidental occurrences.* An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in paragraphs (a) (1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraph (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Regional Administrator in writing within 30 days (i) whenever a claim for bodily injury or property damages caused by the operation of a hazardous waste treatment, storage, or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by paragraphs (a)(1) through (a)(6) of this section is reduced.

(b) *Coverage for nonsudden accidental occurrences.* An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in paragraph (b) (1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(2) An owner or operator may meet the requirements of this section by

passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Regional Administrator in writing within 30 days (i) whenever a claim for bodily injury or property damages caused by the operation of a hazardous waste treatment, storage, or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by paragraphs (a)(1) through (a)(6) of this section is reduced.

(c) *Request for variance.* If an owner or operator can demonstrate to the satisfaction of the Regional Administrator that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Regional Administrator. The request for a variance must be submitted in writing to the Regional Administrator. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section. The Regional Administrator will process a variance request as if it were a permit modification request under § 270.41(a)(5) of this chapter and subject to the procedures of § 124.5 of this chapter. Notwithstanding any other provision, the Regional Administrator may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of pubic interest in a tentative decision to grant a variance.

(d) *Adjustments by the Regional Administrator.* If the Regional Administrator determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Regional Administrator may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Regional Administrator determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator requests to determine whether cause exists for such adjustments of level or type of coverage. The Regional Administrator will process an adjustment of the level of required coverage as if it were a permit modification under § 270.41(a)(5) of this chapter and subject to the procedures of § 124.5 of this chapter. Notwithstanding any other provision, the Regional Administrator may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to adjust the level or type of required coverage.

(e) *Period of coverage.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain liability coverage for that facility, unless the Regional Administrator has reason to believe that closure has not been in accordance with the approved closure plan.

(f) *Financial test for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either: (*1*) At least 90 percent of his total assets; or (*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either: (*1*) At least 90 percent of his total assets; or (*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by §§ 264.143(f), 264.145(f), 265.143(e), and 265.145(e), *and* liability coverage, he must submit the letter specified in § 264.151(g) to cover both forms of financial responsibility; a separate letter as specified in § 264.151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in paragraph (f)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (f)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance for the entire amount of required liability coverage as specified in this section. Evidence of insurance must be submitted to the Regional Administrator within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) *Guarantee for liability coverage.* (1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(6) of this section. The wording of the guarantee must be identical to the wording specified in § 264.151(h)(2) of this chapter. A certified copy of the guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of (A) the State in which the guarantor is incorporated, and (B) each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if (A) the non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business, and if (B) the Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(h) *Letter of credit for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this paragraph and submitting a copy of the letter of credit to the Regional Administrator.

(2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(3) The wording of the letter of credit must be identical to the wording specified in § 264.151(k) of this chapter.

(i) *Surety bond for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this paragraph and submitting a copy of the bond to the Regional Administrator.

(2) The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond must be identical to the wording specified in § 264.151(l) of this chapter.

(4) A surety bond may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of (i) the State in which the surety is incorporated, and (ii) each State in which a facility covered by the surety bond is located have submitted a written statement to EPA that a surety bond executed as described in this section and § 264.151(l) of this chapter is a legally valid and enforceable obligation in that State.

(j) *Trust fund for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator.

(2) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund must be identical to the wording specified in § 264.151(m) of this part.

(k) Notwithstanding any other provision of this part, an owner or operator using liability insurance to satisfy the requirements of this section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

(Approved by the Office of Management and Budget under control number 2000-0445, for paragraphs (a)(1)(i), (b)(1)(i), (b)(5), (c), (d), and (f) (3) through (6))

[47 FR 16558, Apr. 16, 1982, as amended at 47 FR 28627, July 1, 1982; 47 FR 30447, July 13, 1982; 48 FR 30115, June 30, 1983; 51 FR 16458, May 2, 1986; 51 FR 25355, July 11, 1986; 52 FR 44321, Nov. 18, 1987; 53 FR 33959, Sept. 1, 1988]

§ 265.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 265.143(e) and 265.145(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of § 265.143, § 265.145, or § 265.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 265.149 Use of State-required mechanisms.

(a) For a facility located in a State where EPA is administering the requirements of this subpart but where the State has hazardous waste regulations that include requirements for financial assurance of closure or post-closure care or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 265.143, § 265.145, or § 265.147 if the Regional Administrator determines that the

State mechanisms are at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of the mechanisms principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this subpart. The submission must include the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 265.143, § 265.145, or § 265.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 265.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure, post-closure care, or liability requirements of this part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 265.143, § 265.145, or § 265.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this subpart. The letter from the State must include, or have attached to it, the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of §§ 265.143, § 265.145, or § 265.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by use of both the State's assurance *and* additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

Subpart I—Use and Management of Containers

§ 265.170 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as § 265.1 provides otherwise.

§ 265.171 Condition of containers.

If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.

§ 265.172 Compatibility of waste with container.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

§ 265.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[*Comment:* Re-use of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.]

[45 FR 33232, May 19, 1980, as amended at 45 FR 78529, Nov. 25, 1980]

§ 265.174 Inspections.

The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

[*Comment:* See § 265.171 for remedial action required if deterioration or leaks are detected.]

§ 265.175 [Reserved]

§ 265.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[*Comment:* See § 265.17(a) for additional requirements.]

§ 265.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same container, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see Appendix V for examples), unless § 265.17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[*Comment:* The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

Subpart J—Tank Systems

SOURCE: 51 FR 25479, July 14, 1986, unless otherwise noted.

§ 265.190 Applicability.

The regulations of this subpart apply to owners or operators of facilities that use tank systems for storing or treating hazardous waste, except as otherwise provided in paragraphs (a) and (b) of this section or in § 265.1 of this part.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements in § 265.193. To demonstrate the absence or presence of free liquids in the stored/treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

(b) Tank systems, including sumps, as defined in § 260.10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in § 265.193(a).

(Information collection requirement contained in paragraph (a) was approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25479, July 14, 1986, as amended at 53 FR 34087, Sept. 2, 1988]

§ 265.191 Assessment of existing tank system's integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of § 265.193, the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in paragraph (c) of this section, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified, registered professional engineer in accordance with § 270.11(d), that attests to the tank system's integrity by January 12, 1988.

(b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been or will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available, (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, this assessment must consist of a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects,

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment must be either a leak test, as described above, or an internal inspection and/or other tank integrity examination certified by an independent, qualified, registered professional engineer in accordance with § 270.11(d) that addresses cracks, leaks, corrosion, and erosion.

[NOTE: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting the integrity examination of an other than non-enterable underground tank system.]

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986 must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with paragraph (a) of this section, a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of § 265.196.

(Information collection requirements contained in paragraphs (a)-(d) were approved by the Office of Management and Budget under control number 2050-0050)

§ 265.192 Design and installation of new tank systems or components.

(a) Owners or operators of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment reviewed and certified by an independent, qualified, registered professional engineer in accordance with § 270.11(d) attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

(1) Design standard(s) according to which the tank(s) and ancillary equipment is or will be constructed.

(2) Hazardous characteristics of the waste(s) to be handled.

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(A) Soil moisture content;

(B) Soil pH;

(C) Soil sulfides level;

(D) Soil resistivity;

(E) Structure to soil potential;

(F) Influence of nearby underground metal structures (e.g., piping);

(G) Stray electric current; and,

(H) Existing corrosion-protection measures (e.g., coating, cathodic protection), and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(A) Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic;

(B) Corrosion-resistant coating (such as epoxy or fiberglass) with cathodic protection (e.g., impressed current or sacrificial anodes); and

(C) Electrical isolation devices such as insulating joints and flanges.

NOTE: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)—Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in providing corrosion protection for tank systems.

(4) For underground tank system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone, or is located within a seismic fault zone; and

(iii) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems, must inspect the system or component for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction or installation.

All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components and piping that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed in use.

(e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

NOTE: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems," or ANSI Standard B31.3, "Petroleum Refinery System," may be used, where applicable, as guidelines for proper installation of piping systems.

(f) The owner or operator must provide the type and degree of corrosion protection necessary, based on the information provided under paragraph (a)(3) of this section, to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of paragraphs (b) through (f) of this section to attest that the tank system was properly designed and installed and that repairs, pursuant to paragraphs (b) and (d) of this section were performed. These written statements must also include the certification statement as required in § 270.11(d) of this chapter.

(Information collection requirements contained in paragraphs (a) and (g) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25479, July 14, 1986; 51 FR 29430, Aug. 15, 1986]

§ 265.193 Containment and detection of releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in paragraphs (f) and (g) of this section):

(1) For all new tank systems or components, prior to their being put into service;

(2) For all existing tanks used to store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after January 12, 1987;

(3) For those existing tank systems of known and documentable age, within two years after January 12, 1987, or when the tank systems have reached 15 years of age, whichever comes later;

(4) For those existing tank system for which the age cannot be documented, within eight years of January 12, 1987; but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches 15 years of age, or within two years of January 12, 1987, whichever comes later; and

(5) For tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the time intervals required in paragraphs (a)(1) through (a)(4) of this section, except that the date that a material becomes a hazardous waste must be used in place of January 12, 1987.

(b) Secondary containment systems must be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of paragraph (b) of this section, secondary containment systems must be at a minimum:

(1) Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic);

(2) Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours;

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

NOTE: If the collected material is a hazardous waste under Part 261 of this chapter, it is subject to management as a hazardous waste in accordance with all applicable requirements of Parts 262 through 265 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to Publicly Owned Treatment Works (POTWs), it is subject to the requirements of section 307 of the Clear Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302.

(d) Secondary containment for tanks must include one or more of the following devices:

(1) A liner (external to the tank);

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Regional Administrator.

(e) In addition to the requirements of paragraphs (b), (c), and (d) of this section, secondary containment systems must satisfy the following requirements:

(1) External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Free of cracks or gaps; and

(iv) Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

(2) Vault systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints (if any);

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(A) Meets the definition of ignitable waste under § 262.21 of this chapter, or

(B) Meets the definition of reactive waste under § 262.21 of this chapter and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks must be:

(i) Designed as an integral structure (i.e., an inner tank within an outer shell) so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and

(iii) Provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time, if the owner or operator can demonstrate to the Regional Administrator, and the Regional Administrator concurs, that the existing leak detection technology or site conditions will not allow detection of a release within 24 hours.

NOTE: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tank" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(f) Ancillary equipment must be provided with full secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of paragraphs (b) and (c) of this section except for:

(1) Aboveground piping (exclusive of flanges, joints, valves, and connections) that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joint and welded connections that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements of this Section if the Regional Administrator finds, as a result of a demonstration by the owner or operator, either: that alternative design and operating practices, together with location characteristics, will prevent the migration of hazardous waste or hazardous constituents into the ground water *or* surface water at least as effectively as secondary containment during the active life of the tank system *or* that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with paragraph (g)(2) of this section, be exempted from the secondary containment requirements of this section. Application for a variance as allowed in paragraph (g) of this section does not waive compliance with the requirements of this subpart for new tank systems. (1) In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water and surface water, the Regional Administrator will consider:

(i) The nature and quantity of the waste;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils between the tank system and ground water; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

(2) In deciding whether to grant a variance, based on a demonstration of no substantial present or potential

hazard, the Regional Administrator will consider:

(i) The potential adverse effects on ground water, surface water, and land quality taking into account:

(A) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(B) The hydrogeological characteristics of the facility and surrounding land,

(C) The potential for health risks caused by human exposure to waste constituents,

(D) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(E) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on ground-water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The proximity and withdrawal rates of water in the area,

(C) The current and future uses of ground water in the area, and

(D) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The patterns of rainfall in the region,

(C) The proximity of the tank system to surface waters,

(D) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(E) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(A) The patterns of rainfall in the region, and

(B) The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of paragraph (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of § 265.196, except paragraph (d); and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(A) Enable the tank system, for which the variance was granted, to resume operation with the capability for the detection of and response to releases at least equivalent to the capability it had prior to the release, and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with paragraph (g)(3)(ii) of this section, comply with the requirements of § 265.197(b);

(4) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of paragraph (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of § 265.196(a), (b), (c), and (d); and

(ii) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed, or if ground water has been contaminated, the owner or operator must comply with the requirements of § 265.197(b);

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of paragraphs (a) through (f) of this section or reapply for a variance from secondary containment and meet the requirements for new tank systems in § 265.192 if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed, and ground water or surface water has not been contaminated.

(h) The following procedures must be followed in order to request a variance from secondary containment:

(1) The Regional Administrator must be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in paragraph (g) of this section according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with paragraph (a) of this section; and

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation of the tank system.

(2) As part of the notification, the owner or operator must also submit to the Regional Administrator a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in paragraph (g)(1) or paragraph (g)(2) of this section.

(3) The demonstration for a variance must be completed and submitted to the Regional Administrator within 180 days after notifying the Regional Administrator of intent to conduct the demonstration.

(4) The Regional Administrator will inform the public, through a newspaper notice, of the availability of the demonstration for a variance. The notice shall be placed in a daily or weekly major local newspaper of general circulation and shall provide at least 30 days from the date of the notice for the public to review and comment on the demonstration for a variance. The Regional Administrator also will hold a public hearing, in response to a request or at his own discretion, whenever such a hearing might clarify one or more issues concerning the demonstration for a variance. Public notice of the hearing will be given at least 30 days prior to the date of the hearing and may be given at the same time as notice of the opportunity for the public to review and comment on the demonstration. These two notices may be combined.

(5) The Regional Administrator will approve or disapprove the request for a variance within 90 days of receipt of the demonstration from the owner or operator and will notify in writing the owner or operator and each person who submitted written comments or requested notice of the variance decision. If the demonstration for a variance is incomplete or does not include sufficient information, the 90-day time period will begin when the Regional Administrator receives a complete demonstration, including all information necessary to make a final determination. If the public comment period in paragraph (h)(4) of this section is extended, the 90-day time period will be similarly extended.

(i) All tank systems, until such time as secondary containment meeting the requirements of this section is provided, must comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of § 265.191(b)(5) must be conducted at least annually;

(2) For other than non-enterable underground tanks and for all ancillary equipment, an annual leak test, as described in paragraph (i)(1) of this section, or an internal inspection or other tank integrity examination by an independent, qualified, registered professional engineer that addresses cracks, leaks, corrosion, and erosion must be conducted at least annually. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed.

NOTE: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refining Equipment, Chapter XIII, "Atmospheric and Low Pressure Storage Tanks," 4th edition, 1981, may be used, when applicable, as guidelines for assessing the overall condition of the tank system.

(3) The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with

paragraphs (i)(1) through (i)(3) of this section.

(4) If a tank system or component is found to be leaking or unfit-for-use as a result of the leak test or assessment in paragraphs (i)(1) through (i)(3) of this section, the owner or operator must comply with the requirements of § 265.196.

(Information collection requirements contained in paragraphs (c)-(e) and (g)-(i) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25479, July 14, 1986; 51 FR 29430, Aug. 15, 1986, as amended at 53 FR 34087, Sept. 2, 1988]

§ 265.194 General operating requirements.

(a) Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum:

(1) Spill prevention controls (e.g , check valves, dry discount couplings);

(2) Overfill prevention controls (e.g , level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator must comply with the requirements of § 265.196 if a leak or spill occurs in the tank system.

(Information collection requirements contained in paragraph (c) were approved by the Office of Management and Budget under control number 2050-0050)

§ 265.195 Inspections.

(a) The owner or operator must inspect, where present, at least once each operating day:

(1) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

(2) The aboveground portions of the tank system, if any, to detect corrosion or releases of waste;

(3) Data gathered from monitoring equipment and leak-detection equipment, (e.g., pressure and temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and

(4) The construction materials and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation);

NOTE: Section 265.15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section 265.196 requires the owner or operator to notify the Regional Administrator within 24 hours of confirming a release. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of a release.

(b) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system must be confirmed within six months after initial installation, and annually thereafter; and

(2) All sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

NOTE: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)—Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.

(c) The owner or operator must document in the operating record of the facility an inspection of those items in paragraphs (a) and (b) of this section.

(Information collection requirements contained in paragraphs (a)-(c) were approved by the Office of Management and Budget under control number 2050-0050)

§ 265.196 Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:

(a) *Cessation of use; prevent flow or addition of wastes.* The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) *Removal of waste from tank system or secondary containment system.* (1) If the release was from the tank system, the owner or operator must, within 24 hours after detection of the leak or, if the owner or operator demonstrates that that is not possible, at the earliest practicable time remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the release was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) *Containment of visible releases to the environment.* The owner or operator must immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) *Notifications, reports.* (1) Any release to the environment, except as provided in paragraph (d)(2) of this section, must be reported to the Regional Administrator within 24 hours of detection. If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement.

(2) A leak or spill of hazardous waste that is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned-up is exempted from the requirements of this paragraph.

(3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Regional Administrator:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(iii) Results of any monitoring or sampling conducted in connection with the release, (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Regional Administrator as soon as they become available.;

(iv) Proximity to downgradient drinking water, surface water, and population areas; and

(v) Description of response actions taken or planned.

(e) *Provision of secondary containment, repair, or closure.* (1) Unless the owner or operator satisfies the requirements of paragraphs (e) (2) through (4) of this section, the tank system must be closed in accordance with § 265.197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of § 265.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If the source is an aboveground com-

ponent that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of paragraph (f) of this section are satisfied. If a component is replaced to comply with the requirements of this subparagraph, that component must satisfy the requirements for new tank systems or components in §§ 265.192 and 265.193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with § 265.193 prior to being returned to use.

(f) *Certification of major repairs.* If the owner or operator has repaired a tank system in accordance with paragraph (e) of this section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified, registered professional engineer in accordance with § 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be submitted to the Regional Administrator within seven days after returning the tank system to use.

NOTE: The Regional Administrator may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under RCRA section 3004(v), 3008(h), or 7003(a) requiring corrective action or such other response as deemed necessary to protect human health or the environment.

NOTE: See § 265.15(c) for the requirements necessary to remedy a failure. Also, 40 CFR Part 302 requires the owner or operator to notify the National Response Center of a release of any "reportable quantity."

(Information collection requirements contained in paragraphs (d)-(f) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25479, July 14, 1986, as amended at 53 FR 34087, Sept. 2, 1988]

§ 265.197 Closure and post-closure care.

1913 Removed..15877

(a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless § 261.3(d) of this Chapter applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in Subparts G and H of this Part.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (a) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 265.310) In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in Subparts G and H of this part.

(c) If an owner or operator has a tank system which does not have secondary containment that meets the requirements of § 265.193(b) through (f) and which is not exempt from the secondary containment requirements in accordance with § 265.193(g), then,

(1) The closure plan for the tank system must include both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section.

(2) A contingent post-closure plan for complying with paragraph (b) of this section must be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if these costs are greater than the costs of complying with the closure plan prepared for

the expected closure under paragraph (a) of this section.

(4) Financial assurance must be based on the cost estimates in paragraph (c)(3) of this section.

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under Subparts G and H of this Part.

(Information collection requirements contained in paragraphs (a)-(c) were approved by the Office of Management and Budget under control number 2050-0050)

§ 265.198 Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in a tank system, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this chapter; and

(ii) Section 265.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in tanks must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see § 260.11).

§ 265.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible waste and materials, must not be placed in the same tank system, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless § 265.17(b) is complied with.

§ 265.200 Waste analysis and trial tests.

In addition to performing the waste analysis required by § 265.13, the owner or operator must, whenever a tank system is to be used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or treat chemically a hazardous waste with a substantially different process than any previously used in that tank system:

(a) Conduct waste analyses and trial treatment or storage tests (e.g., bench-scale or pilot-plant scale tests); or

(b) Obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will meet the requirements of § 265.194(a).

NOTE: Section 265.13 requires the waste analysis plan to include analyses needed to comply with §§ 265.198 and 265.199. Section 265.73 requires the owner or operator to place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

§ 265.201 Special requirements for generators of between 100 and 1,000 kg/mo that accumulate hazardous waste in tanks.

(a) The requirements of this section apply to small quantity generators of more than 100 kg but less than 1,000 kg of hazardous waste in a calendar month, that accumulate hazardous waste in tanks for less than 180 days (or 270 days if the generator must ship the waste greater than 200 miles), and do not accumulate over 6,000 kg on-site at any time.

(b) Generators of between 100 and 1,000 kg/mo hazardous waste must comply with the following general operating requirements:

(1) Treatment or storage of hazardous waste in tanks must comply with § 265.17(b).

(2) Hazardous wastes or treatment reagents must not be placed in a tank

if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(3) Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

(4) Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., waste feed cutoff system or by-pass system to a stand-by tank).

NOTE: These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc.).

(c) Generators of between 100 and 1,000 kg/mo accumulating hazardous waste in tanks must inspect, where present:

(1) Discharge control equipment (e.g., waste feed cutoff systems, bypass systems, and drainage systems) at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day to ensure that the tank is being operated according to its design;

(3) The level of waste in the tank at least once each operating day to ensure compliance with § 265.201(b)(3);

(4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and

(5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

NOTE: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.

(d) Generators of between 100 and 1,000 kg/mo accumulating hazardous waste in tanks must, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures.

NOTE: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that any solid waste removed from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.

(e) Generators of between 100 and 1,000 kg/mo must comply with the following special requirements for ignitable or reactive waste:

(1) Ignitable or reactive waste must not be placed in a tank, unless:

(i) The waste is treated, rendered, or mixed before or immediately after placement in a tank so that (A) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter, and (B) § 265.17(b) is complied with; or

(ii) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(iii) The tank is used solely for emergencies.

(2) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981) (incorporated by reference, see § 260.11).

(f) Generators of between 100 and 1,000 kg/mo must comply with the following special requirements for incompatible wastes:

(1) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same tank, unless § 265.17(b) is complied with.

(2) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste

or material, unless § 265.17(b) is complied with.

[51 FR 25479, July 14, 1986, as amended at 53 FR 34087, Sept. 2, 1988]

Subpart K—Surface Impoundments

§ 265.220 Applicability.

The regulations in this subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as § 265.1 provides otherwise.

§ 265.221 Design requirements.

(a) The owner or operator of a surface impoundment must install two or more liners and leachate collection system in accordance with § 264.221(c) of this chapter, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in the Part A permit application, and with respect to waste received beginning May 8, 1985.

(b) The owner or operator of each unit referred to in paragraph (a) of this section must notify the Regional Administrator at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six months of the receipt of such notice.

(c) Paragraph (a) of this section will not apply if the owner or operator demonstrates to the Regional Administrator, and the Regional Administrator finds for such surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(d) The double liner requirement set forth in paragraph (a) of this section may be waived by the Regional Administrator for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the EP toxicity characteristics in § 261.24 of this chapter; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner in leaking. For the purposes of this paragraph the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of paragraph (a) of this section on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil it is not removed or decontaminated, the owner of operator of such impoundment must comply with appropriate post-closure requirements, including but not limited to ground-water monitoring and corrective action;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in § 144.3 of this chapter); and

(C) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under RCRA section 3005(c); or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of paragraph (a) of this section and in good faith compliance with paragraph (a) of this section and with guidance documents governing liners and leachate collection systems under paragraph (a) of this section, no liner or leachate collection system which is different from that which was so installed pursuant to paragraph (a) of this section will be required for such unit by the Regional Administrator when issuing the first permit to such facility, except that the Regional Administrator will not be precluded from requiring installation of a new liner when the Regional Administrator has reason to believe that any liner installed pursuant to the requirements of paragraph (a) of this section is leaking.

[50 FR 28749, July 15, 1985]

§ 265.222 General operating requirements.

(a) A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. Except as provided in paragraph (b) of this section, there must be at least 60 centimeters (two feet) of freeboard.

(b) A freeboard level less than 60 entimeters (two feet) may be maintained if the owner or operator obtains ertification by a qualified engineer hat alternate design features or operating plans will, to the best of his nowledge and opinion, prevent overtopping of the dike. The certification, long with a written identification of lternate design features or operating lans preventing overtopping, must be aintained at the facility.

Approved by the Office of Management nd Budget under the control number 2050-007)

50 FR 16048, Apr. 23, 1985]

265.223 Containment system.

All earthen dikes must have a proective cover, such as grass, shale, or ock, to minimize wind and water eroion and to preserve their structural tegrity.

265.224 [Reserved]

265.225 Waste analysis and trial tests.

(a) In addition to the waste analyses equired by § 265.13, whenever a surce impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator must, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with § 265.17(b).

[*Comment:* As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.229 and 265.230. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.226 Inspections.

(a) The owner or operator must inspect:

(1) The freeboard level at least once each operating day to ensure compliance with § 265.222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

[*Comment:* As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§ 265.227 [Reserved]

§ 265.228 Closure and post-closure care.

(a) At closure, the owner or operator must:

(1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(2) Close the impoundment and provide post-closure care for a landfill

under Subpart G and § 265.310, including the following:

(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) In addition to the requirements of Subpart G, and § 265.310, during the post-closure care period, the owner or operator of a surface impoundment in which wastes, waste residues, or contaminated materials remain after closure in accordance with the provisions of paragraph (a)(2) of this section must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part; and

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

[52 FR 8708, Mar. 19, 1987]

§ 265.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 265.17(b) is complied with; or

(b)(1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

(2) The owner or operator obtains a certification from a qualified chemist or engineer that, to the best of his knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

(3) The certification and the basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

(Approved by the Office of Management and Budget under control number 2050-0007)

[50 FR 16048, Apr. 23, 1985]

§ 265.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same surface impoundment, unless § 265.17(b) is complied with.

Subpart L—Waste Piles

§ 265.250 Applicability.

The regulations in this subpart apply to owners and operators of facilities that treat or store hazardous waste in piles, except as § 265.1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under Subpart N.

§ 265.251 Protection from wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind must cover or otherwise manage the pile so that wind dispersal is controlled.

§ 265.252 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, *unless* (1) The only wastes the facility receives which are amenable to piling are compatible with each other, or (2) the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted must be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis must include a visual comparison of color and texture.

[*Comment:* As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.256 and 265.257. As required by § 265.73, the owner or operator must place the results of this analysis in the operating record of the facility.]

§ 265.253 Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a)(1) The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

(3) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

(4) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b)(1) The pile must be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

Comment: If collected leachate or run-off s discharged through a point source to waters of the United States, it is subject to he requirements of section 402 of the Clean Water Act, as amended.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32367, July 26, 1982]

§ 265.254 Design requirements.

The owner or operator of a waste pile is subject to the requirements for liners and leachate collection systems or equivalent protection provided in § 264.251 of this chapter, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area indentified in the Part A permit application, and with respect to waste received beginning May 8, 1985.

[50 FR 28750, July 15, 1985]

§ 265.255 [Reserved]

§ 265.256 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive wastes must not be placed in a pile, *unless:*

(1) Addition of the waste to an existing pile (i) results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter, and (ii) complies with § 265.17(b); or

(2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 265.257 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same pile, unless § 265.17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

[*Comment:* The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.]

(c) Hazardous waste must not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with § 265.17(b).

§ 265.258 Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (§ 265.310).

[47 FR 32368, July 26, 1982]

Subpart M—Land Treatment

§ 265.270 Applicability.

The regulations in this subpart apply to owners and operators of hazardous waste land treatment facilities, except as § 265.1 provides otherwise.

§ 265.271 [Reserved]

§ 265.272 General operating requirements.

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

(b) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 25-year storm.

(c) The owner or operator must design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 25-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982; 50 FR 16048, Apr. 23, 1985]

§ 265.273 Waste analysis.

In addition to the waste analyses required by § 265.13, before placing a hazardous waste in or on a land treatment facility, the owner or operator must:

(a) Determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in Table I of § 261.24 of this chapter that cause a waste to exhibit the EP toxicity characteristic;

(b) For any waste listed in Part 261, Subpart D, of this chapter, determine the concentrations of any substances which caused the waste to be listed as a hazardous waste; and

(c) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, *unless* the owner or operator has written, documented data that show that the constituent is not present.

[*Comment:* Part 261 of this chapter specifies the substances for which a waste is listed as a hazardous waste. As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.281 and 265.282. As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§§ 265.274—265.275 [Reserved]

§ 265.276 Food chain crops.

(a) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and will be grown in the future, must notify the Regional Administrator within 60 days after the effective date of this part.

[*Comment:* The growth of food chain crops at a facility which has never before been used for this purpose is a significant change in process under § 122.72(c) of this chapter. Owners or operators of such land treatment facilities who propose to grow food chain crops after the effective date of this part must comply with § 122.72(c) of this chapter.]

(b)(1) Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under § 265.273(b):

(i) Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g., by grazing); or

(ii) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

(2) The information necessary to make the demonstration required by paragraph (b)(1) of this section must be kept at the facility and must, at a minimum:

(i) Be based on tests for the specific waste and application rates being used at the facility; and

(ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of paragraphs (c)(1) (i) through (iii) of this section or all requirements of paragraphs (c)(2) (i) through (iv) of this section are met.

(1)(i) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time period	Annual Cd application rate (kg/ha)
Present to June 30, 1984	2.0
July 1, 1984 to December 31, 1986	1.25
Beginning January 1, 1987	0.5

(iii) The cumulative application of cadmium from waste does not exceed the levels in either paragraph (c)(1)(iii)(A) or (B) of this section.

(A)

Soil caption exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Background soil pH less than 6.5	Background soil pH greater than 6.5
Less than 5	5	5
5 to 15	5	10
Greater than 15	5	20

(B) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below: *Provided*, that the pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food chain crops are grown.

Soil caption exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5
5 to 15	10
Greater than 15	20

(2)(i) The only food chain crop produced is animal feed.

(ii) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with paragraph (c)(2) of this section.

[*Comment:* As required by § 265.73, if an owner or operator grows food chain crops on his land treatment facility, he must place the information developed in this section in the operating record of the facility.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982; 48 FR 14295, Apr. 1, 1983]

§ 265.277 [Reserved]

§ 265.278 Unsaturated zone (zone of aeration) monitoring.

(a) The owner or operator must have in writing, and must implement, an unsaturated zone monitoring plan which is designed to:

(1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and

(2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring must be conducted before or in conjunction with the monitoring required under paragraph (a)(1) of this section.

(b) The unsaturated zone monitoring plan must include, at a minimum:

(1) Soil monitoring using soil cores, and

(2) Soil-pore water monitoring using devices such as lysimeters.

(c) To comply with paragraph (a)(1) of this section, the owner or operator must demonstrate in his unsaturated zone monitoring plan that:

(1) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(2) The number of soil and soil-pore water samples to be taken is based on the variability of:

(i) The hazardous waste constituents (as identified in § 265.273(a) and (b)) in the waste and in the soil; and

(ii) The soil type(s); and

(3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.

(d) The owner or operator must keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

(e) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under § 265.273 (a) and (b).

[*Comment:* As required by § 265.73, all data and information developed by the owner or operator under this section must be placed in the operating record of the facility.]

§ 265.279 Recordkeeping.

The owner or operator must include hazardous waste application dates and rates in the operating record required under § 265.73.

[47 FR 32368, July 26, 1982]

§ 265.280 Closure and post-closure.

(a) In the closure plan under § 265.112 and the post-closure plan under § 265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with § 265.276 concerning the gowth of food-chain crops.

(b) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (a) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water and drinking water sources);

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Unsaturated zone monitoring information obtained under § 265.278; and

(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of paragraph (a) of this section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(i) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control); and

(ii) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(3) Monitoring of ground water.

(d) In addition to the requirements of Subpart G of this part, during the closure period the owner or operator of a land treatment facility must:

(1) Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) Maintain the run-on control system required under § 265.272(b);

(3) Maintain the run-off management system required under § 265.272(c); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with § 265.115, when closure is completed the owner or operator may submit to the Regional Administrator certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of § 265.117, during the post-closure care period the owner or operator of a land treatment unit must:

(1) Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

(2) Restrict access to the unit as appropriate for its post-closure use;

(3) Assure that growth of food chain crops complies with § 265.276; and

(4) Control wind dispersal of hazardous waste.

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982]

§ 265.281 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be land treated unless:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 265.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

[47 FR 32368, July 26, 1982]

§ 265.282 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials (see Appendix V for examples), must not be placed in the same land treatment area, unless § 265.17(b) is complied with.

Subpart N—Landfills

§ 265.300 Applicability.

The regulations in this subpart apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as § 265.1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this subpart.

§ 265.301 Design requirements.

(a) The owner or operator of a landfill must install two or more liners and leachate collection systems above and between such liners in accordance with § 264.301(c) of this chapter, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in the Part A permit application, and with respect to waste received beginning May 8, 1985.

(b) The owner or operator of each unit referred to in paragraph (a) of this section must notify the Regional Administrator at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six months of the receipt of such notice.

(c) Paragraph (a) of this section will not apply if the owner or operator demonstrates to the Regional Administrator, and the Regional Administrator finds for such landfill, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(d) The double liner requirement set forth in paragraph (a) of this section may be waived by the Regional Administrator for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the EP toxicity characteristics in § 261.24 of this chapter, and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in § 144.3 of this chapter); and

(C) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under RCRA section 3005(c); or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of paragraph (a) of this section and in good faith compliance with paragraph (a) of this section and with guidance documents governing liners and leachate collection systems under paragraph (a) of this section, no liner or leachate collection system which is different from that which was so installed pursuant to paragraph (a) of this section will be required for such unit by the Regional Administrator when issuing the first permit to such facility, except that the Regional Administrator will not be precluded from requiring installation of a new liner when the Regional Administrator has reason to believe that any liner installed pursuant to the requirements of paragraph (a) of this section is leaking.

[50 FR 28750, July 15, 1985]

§ 265.302 General operating requirements.

(a) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(b) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(c) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

[*Comment*: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.312, 265.313, and 265.314. As required by § 265.73, the owner or operator must place the results of these analyses in the operating record of the facility.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982; 50 FR 18374, Apr. 30, 1985]

§§ 265.303—265.308 [Reserved]

§ 265.309 Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required in § 265.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

§ 265.310 Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all post-closure requirements contained in §§ 265.117 through 265.120 including maintenance and monitoring throughout the post-closure care period. The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part;

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(4) Protect and maintain surveyed benchmarks used in complying with § 265.309.

[50 FR 16048, Apr. 23, 1985]

§ 265.311 [Reserved]

§ 265.312 Special requirements for ignitable or reactive waste.

(a) Except as provided in paragraph (b) of this section, and in § 265.316, ignitable or reactive waste must not be placed in a landfill, unless the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that:

(1) The resulting waste, mixture, or dissolution or material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 265.17(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (a) of this section provided that the wastes are disposed in such a way that they are protected from any material or conditions which may cause them to ignite.

At a minimum, ignitable wastes must be disposed in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

[47 FR 32368, July 26, 1982]

§ 265.313 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same landfill cell, unless § 265.17(b) is complied with.

§ 265.314 Special requirements for bulk and containerized liquids.

(a) Bulk or non-containerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985 only if:

(1) The landfill has a liner and leachate collection and removal system that meets the requirements of § 264.301(a) of this chapter; or

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.

(c) Containers holding free liquids must not be placed in a landfill unless:

(1) All free-standing liquid (i) has been removed by decanting, or other methods, (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed or (iii) had been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in § 265.316 and is disposed of in accordance with § 265.316.

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." [EPA Publication No. SW-846].

(e) The date for compliance with paragraph (a) of this section is November 19, 1981. The date for compliance with paragraph (c) of this section is March 22, 1982.

(f) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the Regional Administrator, or the Regional Administrator determines, that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in § 144.3 of this chapter).

(Approved by the Office of Management and Budget under control number 2050-0037)

[45 FR 33232, May 19, 1980, as amended at 47 FR 12318, Mar. 22, 1982; 47 FR 32369, July 26, 1982; 50 FR 18374, Apr. 30, 1985; 50 FR 28750, July 15, 1985; 51 FR 19177, May 28, 1986]

§ 265.315 Special requirements for containers.

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

[50 FR 16048, Apr. 23, 1985]

§ 265.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfull if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178 and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

(c) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with § 265.17(b).

(d) Incompatible wastes, as defined in § 260.10(a) of this chapter, must not be placed in the same outside container.

(e) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in § 261.23(a)(5) of this chapter, must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (a) through (d) of this section. Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with paragraphs (a) through (d) of this section without first being treated or rendered non-reactive.

[46 FR 56596, Nov. 17, 1981]

Subpart O—Incinerators

SOURCE: 46 FR 7680, Jan. 23, 1981, unless otherwise noted.

§ 265.340 Applicability.

(a) The regulations in this subpart apply to owners or operators of facilities that incinerate hazardous waste, except as § 264.1 provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(1) Owners or operators of hazardous waste incinerators (as defined in § 260.10 of this chapter); and

(2) Owners or operators who burn hazardous waste in boilers or in industrial furnaces in order to destroy them, or who burn hazardous waste in boilers or in industrial furnaces for any recycling purpose and elect to be regulated under this subpart.

(b) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this subpart, except § 265.351 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in Part 261, Appendix VIII, of this chapter, and such documentation is retained at the facility, if the waste to be burned is:

(1) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(2) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under Part 261, Subpart C, of this chapter; or

(4) A hazardous waste solely because it possesses the reactivity characteristics described by § 261.23(a) (1), (2), (3), (6), (7), or (8) of this chapter, and will not be burned when other hazard-

ous wastes are present in the combustion zone.

[47 FR 27533, June 24, 1982 and 50 FR 666, Jan. 4, 1985, as amended at 50 FR 49203, Nov. 29, 1985]

§ 265.341 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

[*Comment:* As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§§ 265.342—265.344 [Reserved]

§ 265.345 General operating requirements.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

§ 265.346 [Reserved]

§ 265.347 Monitoring and inspections.

The owner or operator must conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments which relate to combustion and emission control must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions must be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(b) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27533, June 24, 1982]

§§ 265.348—265.350 [Reserved]

§ 265.351 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator.

[*Comment:* At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(d) of this chapter, that the residue removed from his incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262 through 266 of this chapter.]

§ 265.352 Interim status incinerators burning particular hazardous wastes.

(a) Owners or operators of incinerators subject to this subpart may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Subpart O of Part 264 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify an incinerator:

(1) The owner or operator will submit an application to the Assistant Administrator for Solid Waste and Emergency Response containing applicable information in §§ 270.19 and 270.62 demonstrating that the incinerator can meet the performance stand-

ards in Subpart O of Part 264 when they burn these wastes.

(2) The Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the incinerator can meet the performance standards in Subpart O of Part 264. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The Assistant Administrator for Solid Waste and Emergency Response also may hold a public hearing upon request or at his discretion.

(3) After the close of the public comment period, the Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the incinerator.

[50 FR 2005, Jan. 14, 1985]

§§ 265.353—265.369 [Reserved]

Subpart P—Thermal Treatment

§ 265.370 Other thermal treatment.

The regulations in this subpart apply to owners or operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as § 265.1 provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of Subpart O if the unit is an incinerator.

[50 FR 666, Jan. 4, 1985]

§§ 265.371—265.372 [Reserved]

§ 265.373 General operating requirements.

Before adding hazardous waste, the owner or operator must bring his thermal treatment process to steady state (normal) conditions of operation—including steady state operating temperature—using auxiliary fuel or other means, unless the process is a non-continuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

§ 265.374 [Reserved]

§ 265.375 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must sufficiently analyze any waste which he has not previously treated in his thermal process to enable him to establish steady state (normal) or other appropriate (for a non-continuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, *unless* the owner or operator has written, documented data that show that the element is not present.

[*Comment:* As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§ 265.376 [Reserved]

§ 265.377 Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(1) Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions must be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.

(2) The stack plume (emissions), where present, must be observed visually at least hourly for normal appearance (color and opacity). The operator must immediately make any indicated operating corrections necessary to

return any visible emissions to their normal appearance.

(3) The complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

§§ 265.378—265.380 [Reserved]

§ 265.381 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment.

[*Comment:* At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that any solid waste removed from his thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

§ 265.382 Open burning; waste explosives.

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives must do so in accordance with the following table and in a manner that does not threaten human health or the environment.

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 to 100	204 meters (670 feet).
101 to 1,000	380 meters (1,250 feet).
1,001 to 10,000	530 meters (1,730 feet).
10,001 to 30,000	690 meters (2,260 feet).

§ 265.383 Interim status thermal treatment devices burning particular hazardous waste.

(a) Owners or operators of thermal treatment devices subject to this subpart may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Subpart O of Part 264 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

(1) The owner or operator will submit an application to the Assistant Administrator for Solid Waste and Emergency Response containing the applicable information in §§ 270.19 and 270.62 demonstrating that the thermal treatment unit can meet the performance standard in Subpart O of Part 264 when they burn these wastes.

(2) The Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in Subpart O of Part 264. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The Assistant Administrator for Solid Waste and Emergency Response also may hold a public hearing upon request or at his discretion.

(3) After the close of the public comment period, the Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the thermal treatment unit.

[50 FR 2005, Jan. 14, 1985]

Subpart Q—Chemical, Physical, and Biological Treatment

§ 265.400 Applicability.

The regulations in this subpart apply to owners and operators of facilities which treat hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities, except as § 265.1 provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities must be conducted in accordance with Subparts J, K, and M, respectively.

§ 265.401 General operating requirements.

(a) Chemical, physical, or biological treatment of hazardous waste must comply with § 265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment must be equipped with a means to stop this inflow (e.g., a waste feed cut-off system or by-pass system to a standby containment device).

[*Comment:* These systems are intended to be used in the event of a malfunction in the treatment process or equipment.]

§ 265.402 Waste analysis and trial tests.

(a) In addition to the waste analysis required by § 265.13, whenever:

(1) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or

(2) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste;

the owner or operator must, before treating the different waste or using the different process or equipment:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions;

to show that this proposed treatment will meet all applicable requirements of § 265.401 (a) and (b).

[*Comment:* As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.405 and 265.406. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.403 Inspections.

(a) The owner or operator of a treatment facility must inspect, where present:

(1) Discharge control and safety equipment (e.g., waste feed cut-off systems, by-pass systems, drainage systems, and pressure relief systems) at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

(3) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(4) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

[*Comment:* As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§ 265.404 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.

[*Comment:* At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3 (c) or (d) of this chapter, that any solid waste removed from his treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

§ 265.405 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a treatment process or equipment unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or 261.23 or this chapter, and (ii) § 265.17(b) is complied with; or

(2) The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

§ 265.406 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same treatment process or equipment, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless § 265.17(b) is complied with.

Subpart R—Underground Injection

§ 265.430 Applicability.

Except as § 265.1 provides otherwise:

(a) The owner or operator of a facility which disposes of hazardous waste by underground injection is excluded from the requirements of Subparts G and H of this part.

(b) The requirements of this subpart apply to owners and operators of wells used to dispose of hazardous waste which are classified as Class I under § 144.6(a) of this chapter and which are classified as Class IV under § 144.6(d) of this chapter.

[*Comment:* In addition to the requirements of Subparts A through E of this part, the owner or operator of a facility which disposes of hazardous waste by underground injection ultimately must comply with the requirements of §§ 265.431 through 265.437. These sections are reserved at this time. The Agency will propose regulations that would establish those requirements.]

[45 FR 33232, May 19, 1980, as amended at 48 FR 30115, June 30, 1983]

APPENDIX I—RECORDKEEPING INSTRUCTIONS

The recordkeeping provisions of § 265.73 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping *portions* of the operating record. See § 265.73(b) for additional recordkeeping requirements.

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Part 261 of this chapter which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part 261, Subpart D, of this chapter, the description also must include the process that produced it (for example, solid filter cake from production of ——, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Part 261, Subpart D, of this chapter, and each hazardous waste characteristic defined in Part 261, Subpart C, of this chapter, has a four-digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1; and

TABLE 1

Unit of measure	Symbol[1]	Density
Pounds	P	
Short tons (2000 lbs)	T	
Gallons (U.S.)	G	P/G
Cubic yards	Y	T/Y
Kilograms	K	
Tonnes (1000 kg)	M	

TABLE 1—Continued

Unit of measure	Symbol[1]	Density
Liters	L	K/L
Cubic meters	C	M/C

[1] Single digit symbols are used here for data processing purposes.

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

TABLE 2—HANDLING CODES FOR TREATMENT, STORAGE, AMD DISPOSAL METHODS

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage

S01 Container (barrel, drum, etc.)
S02 Tank
S03 Waste pile
S04 Surface impoundment
S05 Other (specify)

2. Treatment

(a) Thermal Treatment

T06 Liquid injection incinerator
T07 Rotary kiln incinerator
T08 Fluidized bed incinerator
T09 Multiple hearth incinerator
T10 Infrared furnace incinerator
T11 Molten salt destructor
T12 Pyrolysis
T13 Wet air oxidation
T14 Calcination
T15 Microwave discharge
T16 Cement kiln
T17 Lime kiln
T18 Other (specify)

(b) Chemical Treatment

T19 Absorption mound
T20 Absorption field
T21 Chemical fixation
T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation
T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)

(c) Physical Treatment:

(1) Separation of components

T35 Centrifugation
T36 Clarification
T37 Coagulation
T38 Decanting
T39 Encapsulation
T40 Filtration
T41 Flocculation
T42 Flotation
T43 Foaming
T44 Sedimentation
T45 Thickening
T46 Ultrafiltration
T47 Other (specify)

(2) Removal of Specific Components

T48 Absorption-molecular sieve
T49 Activated carbon
T50 Blending
T51 Catalysis
T52 Crystallization
T53 Dialysis
T54 Distillation
T55 Electrodialysis
T56 Electrolysis
T57 Evaporation
T58 High gradient magnetic separation
T59 Leaching
T60 Liquid ion exchange
T61 Liquid-liquid extraction
T62 Reverse osmosis
T63 Solvent recovery
T64 Stripping
T65 Sand filter
T66 Other (specify)

(d) Biological Treatment

T67 Activated sludge
T68 Aerobic lagoon
T69 Aerobic tank
T70 Anaerobic lagoon
T71 Composting
T72 Septic tank
T73 Spray irrigation
T74 Thickening filter
T75 Tricking filter
T76 Waste stabilization pond
T77 Other (specify)
T78-79 [Reserved]

3. Disposal

D80 Underground injection
D81 Landfill
D82 Land treatment
D83 Ocean disposal
D84 Surface impoundment (to be closed as a landfill)
D85 Other (specify)

APPENDIX II—[RESERVED]

APPENDIX III—EPA INTERIM PRIMARY DRINKING WATER STANDARDS

Parameter	Maximum level (mg/l)
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Fluoride	1.4-2.4
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
2,4-D	0.1
2,4,5-TP Silver	0.01
Radium	5 pCi/1
Gross Alpha	15 pCi/1
Gross Beta	4 millirem/yr
Turbidity	1/TU
Coliform Bacteria	1/100 ml

[*Comment:* Turbidity is applicable only to surface water supplies.]

APPENDIX IV—TESTS FOR SIGNIFICANCE

As required in § 265.93(b) the owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic ground-water samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For three of the indicator parameters (specific conductance, total organic carbon, and total organic halogen) a single-tailed Student's t-test must be used to test at the 0.01 level of significance for significant increases over background. The difference test for pH must be a two-tailed Student's t-test at the overall 0.01 level of significance.

The student's t-test involves calculation of the value of a t-statistic for each comparison of the mean (average) concentration or value (based on a minimum of four replicate measurements) of an indicator parameter with its initial background concentration or value. The calculated value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter.

Formulae for calculation of the t-statistic and tables for t-test of significance can be found in most introductory statistics texts.

APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A	Group 1-B
Acetyiene sludge	Acid sludge
Akaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluid	Electrolyte, acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other corrosive alkalies	
Lime wastewater	Pickling liquor and other corrosive acids
Lime and water	Spent acid
Spent caustic	Spent mixed acid

Group 1-A	Group 1-B
	Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A	Group 2-B
Aluminum	Any waste in Group 1-A or 1-B
Beryllium	
Calcium	
Lithium	
Magnesium	
Potassium	
Sodium	
Zinc powder	
Other reactive metals and metal hydrides	

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A	Group 3-B
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium
	Lithium
	Metal hydrides
	Potassium
	SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
	Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A	Group 4-B
Alcohols	Concentrated Group 1-A or 1-B wastes
Aldehydes	Group 2-A wastes
Halogenated hydrocarbons	
Nitrated hydrocarbons	
Unsaturated hydrocarbons	
Other reactive organic compounds and solvents	

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A	Group 5-B
Spent cyanide and sulfide solutions	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A	Group 6-B
Chlorates	Acetic acid and other organic acids
Chlorine	Concentrated mineral acides
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hyphochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Permanganates	
Peroxides	
Other strong oxidizers	

Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

Subparts A—B [Reserved]

Subpart C—Recyclable Materials Used in a Manner Constituting Disposal

Sec.
266.20 Applicability.
266.21 Standards applicable to generators and transporters of materials used in a manner that constitute disposal.
266.22 Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.
266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

Subpart D—Hazardous Waste Burned for Energy Recovery

266.30 Applicability.
266.31 Prohibitions.
266.32 Standards applicable to generators of hazardous waste fuel.
266.33 Standards applicable to transporters of hazardous waste fuel.
266.34 Standards applicable to marketers of hazardous waste fuel.
266.35 Standards applicable to burners of hazardous waste fuel.

Sec.

Subpart E—Used Oil Burned for Energy Recovery

266.40 Applicability.
266.41 Prohibitions.
266.42 Standards applicable to generators of used oil burned for energy recovery.
266.43 Standards applicable to marketers of used oil burned for energy recovery.
266.44 Standards applicable to burners of used oil burned for energy recovery.

Subpart F—Recyclable Materials Utilized for Precious Metal Recovery

266.70 Applicability and requirements.

Subpart G—Spent Lead-Acid Batteries Being Reclaimed

266.80 Applicability and requirements.

AUTHORITY: Secs. 1006, 2002(a), 3004, and 3014 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6934).

SOURCE: 50 FR 666, Jan. 4, 1985, unless otherwise noted.

Subparts A—B [Reserved]

Subpart C—Recyclable Materials Used in a Manner Constituting Disposal

§ 266.20 Applicability.

(a) The regulations of this subpart apply to recyclable materials that are applied to or placed on the land:

(1) Without mixing with any other substance(s); or

(2) After mixing or conmbination with any other substance(s). These materials will be referred to throughout this subpart as "materials used in a manner that constitutes disposal."

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in Subpart D of Part 268 (or applicable prohibition levels in § 268.32 or RCRA section 3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste constituent) that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation.

[50 FR 666, Jan. 4, 1985, as amended at 52 FR 21307, June 5, 1987; 53 FR 31212, Aug. 17, 1988]

§ 266.21 Standards applicable to generators and transporters of materials used in a manner that constitute disposal.

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Parts 262 and 263 of this chapter, and the notification requirement under section 3010 of RCRA.

§ 266.22 Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of Subparts A through L of Parts 264 and 265 and Parts 270 and 124 of this chapter and the notification requirement under section 3010 of RCRA.

§ 266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of Subparts A through N of Parts 264 and 265 and Parts 270 and 124 of this chapter and the notification requirement under section 3010 of RCRA. (These requirements do not apply to products which contain these recyclable materials under the provisions of § 266.20(b) of this chapter.)

(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

[50 FR 666, Jan. 4, 1985, as amended at 50 FR 28750, July 15, 1985]

Subpart D—Hazardous Waste Burned for Energy Recovery

SOURCE: 50 FR 49204, Nov. 29, 1985, unless otherwise noted.

§ 266.30 Applicability.

(a) The regulations of this subpart apply to hazardous wastes that are burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of Part 264 or 265 of this chapter, except as provided by paragraph (b) of this section. Such hazardous wastes burned for energy recovery are termed "hazardous waste fuel". Fuel produced from hazardous waste by processing, blending, or other treatment is also hazardous waste fuel. (These regulations do not apply, however, to gas recovered from hazardous waste management activities when such gas is burned for energy recovery.)

(b) The following hazardous wastes are not subject to regulation under this subpart:

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in Subpart C of Part 261 of this chapter. Such used oil is subject to regulation under Subpart E of Part 266 rather than this subpart; and

(2) Hazardous wastes that are exempt from regulation under §§ 261.4 and 261.6(a) (3) (v) through (ix) of this chapter, and hazardous wastes that are subject to the special requirements for small quantity generators under § 261.5 of this chapter.

§ 266.31 Prohibitions.

(a) A person may market hazardous waste fuel only:

(1) To persons who have notified EPA of their hazardous waste fuel activities and have a U.S. EPA Identification Number; and

(2) If the fuel is burned, to persons who burn the fuel in boilers or industrial furnaces identified in paragaraph (b) of this section.

(b) Hazardous waste fuel may be burned for energy recovery in only the following devices;

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(ii) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale.

(c) No fuel which contains any hazardous waste may be burned in any cement kiln which is located within the boundaries of any incorporated municipality with a population greater than 500,000 (based on the most recent census statistics) unless such kiln fully complies with regulations under this chapter that are applicable to incinerators.

[50 FR 49204, Nov. 29, 1985, as amended at 52 FR 11821, Apr. 13, 1987]

§ 266.32 Standards applicable to generators of hazardous waste fuel.

(a) Generators of hazardous waste that is used as a fuel or used to produce a fuel are subject to Part 262 of this chapter.

(b) Generators who market hazardous waste fuel to a burner also are subject to § 266.34.

(c) Generators who are burners also are subject to § 266.35.

§ 266.33 Standards applicable to transporters of hazardous waste fuel.

Transporters of hazardous waste fuel (and hazardous waste that is used to produce a fuel) are subject to Part 263 of this chapter.

§ 266.34 Standards applicable to marketers of hazardous waste fuel.

Persons who market hazardous waste fuel are termed "marketers", and are subject to the following requirements. Marketers include generators who market hazardous waste fuel directly to a burner, persons who receive hazardous waste from generators and produce, process, or blend hazardous waste fuel from these hazardous wastes, and persons who distribute but do not process or blend hazardous waste fuel.

(a) *Prohibitions.* The prohibitions under § 266.31(a);

(b) *Notification.* Notification of hazardous waste fuel activities. Even if a marketer has previously notified EPA of his hazardous waste management activities and obtained a U.S. EPA Identification Number, he must renotify to identify his hazardous waste fuel activities.

(c) *Storage.* The applicable provisions of § 262.34, and Subparts A through L of Part 264, Subparts A through L of Part 265, and Part 270 of this chapter;

(d) *Off-site shipment.* The standards for generators in Part 262 of this chapter when a marketer initiates a shipment of hazardous waste fuel;

(e) *Required notices.* (1) Before a marketer initiates the first shipment of hazardous waste fuel to a burner or another marketer, he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(i) The burner or marketer has notified EPA and identified his waste-as-fuel activities; and

(ii) If the recipient is a burner, the burner will burn the hazardous waste fuel only in an industrial furnace or boiler identified in § 266.31(b).

(2) Before a marketer accepts the first shipment of hazardous waste fuel from another marketer, he must provide the other marketer with a one-time written and signed certification that he has notified EPA under section 3010 of RCRA and identified his hazardous waste fuel activities; and

(f) *Recordkeeping.* In addition to the applicable recordkeeping requirements of Parts 262, 264, and 265 of this chapter, a marketer must keep a copy of each certification notice he receives or sends for three years from the date he last engages in a hazardous waste fuel marketing transaction with the person who sends or receives the certification notice.

(The notification requirements contained in paragraph (b) of this section were approved by the Office of Management and Budget under control number 2050-0028. The storage requirements contained in paragraph (c) of this section were approved by the Office of Management and Budget under control number 2050-0009. The manifest and invoice requirements contained in paragraph (d) of this section were approved by the Office of Management and Budget under control numbers 2050-0039 and 2050-0047, respectively. The certification requirements contained in paragraph (e) were approved by the Office of Management and Budget under control number 2050-0047. The recordkeeping requirements contained in paragraph (f) were approved by the Office of Management and Budget under control number 2050-0047.)

[50 FR 49204, Nov. 29, 1985, as amended at 52 FR 11821, Apr. 13, 1987]

§ 266.35 Standards applicable to burners of hazardous waste fuel.

Owners and operators of industrial furnaces and boilers identified in § 266.31(b) that burn hazardous waste fuel are "burners" and are subject to the following requirements:

(a) *Prohibitions.* The prohibitions under § 266.31(b);

(b) *Notification.* Notification of hazardous waste fuel activities. Even if a burner has previously notified EPA of his hazardous waste management activities and obtained a U.S. EPA Identification Number, he must renotify to identify his hazardous waste fuel activities.

(c) *Storage.* (1) For short term accumulation by generators who burn their hazardous waste fuel on site, the applicable provisions of § 262.34 of this chapter;

(2) For existing storage facilities, the applicable provisions of Subparts A through L of Part 265, and Parts 270 and 124 of this chapter; and

(3) For new storage facilities, the applicable provisions of Subparts A through L of Part 264, and Parts 270 and 124 of this chapter;

(d) *Required notices.* Before a burner accepts the first shipment of hazardous waste fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(1) He has notified EPA and identified his waste-as-fuel activities; and

(2) He will burn the fuel only in a boiler or furnace identified in § 266.31(b).

(e) *Recordkeeping.* In addition to the applicable recordkeeping requirements of Parts 264 and 265 of this chapter, a burner must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives hazardous waste fuel from that marketer.

(The notification requirements contained in paragraph (b) of this section were approved by the Office of Management and Budget under control number 2050-0028. The storage requirements contained in paragraph (c) of this section were approved by the Office of Management and Budget under control number 2050-0009. The certification requirements contained in paragraph (d) of this section were approved by the Office of Management and Budget under control number 2050-0047. The recordkeeping requirements contained in paragraph (e) of this section were approved by the Office of Management and Budget under control number 2050-0047.)

[50 FR 49204, Nov. 29, 1985, as amended at 52 FR 11821, Apr. 13, 1987]

Subpart E—Used Oil Burned for Energy Recovery

SOURCE: 50 FR 49205, Nov. 29, 1985, unless otherwise noted.

§ 266.40 Applicability.

(a) The regulations of this subpart apply to used oil that is burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of Part 264 or 265 of this chapter, except as provided by paragraphs (c) and (e) of this section. Such used oil is termed "used oil fuel". Used oil fuel includes any fuel produced from used oil by processing, blending, or other treatment.

(b) "Used oil" means any oil that has been refined from crude oil, used, and, as a result of such use, is contaminated by physical or chemical impurities.

(c) Except as provided by paragraph (d) of this section, used oil that is mixed with hazardous waste and burned for energy recovery is subject to regulation as hazardous waste fuel under Subpart D of Part 266. Used oil containing more than 1000 ppm of total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subpart D of Part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Part 261 of this chapter).

(d) Used oil burned for energy recovery is subject to regulation under this subpart rather than as hazardous waste fuel under Subpart D of this part if it is a hazardous waste solely because it:

(1) Exhibits a characteristic of hazardous waste identified in Subpart C of Part 261 of this chapter, provided that it is not mixed with a hazardous waste; or

(2) Contains hazardous waste generated only by a person subject to the special requirements for small quantity generators under § 261.5 of this chapter.

(e) Except as provided by paragraph (c) of this section, used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this subpart unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in the following table. Used oil fuel that meets the specification is subject only to the analysis and recordkeeping requirements under § 266.43(b) (1) and (6). Used oil fuel that exceeds any specification level is termed "off-specification used oil fuel".

USED OIL EXCEEDING ANY SPECIFICATION LEVEL IS SUBJECT TO THIS SUBPART WHEN BURNED FOR ENERGY RECOVERY [a]

Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium	10 ppm maximum.
Lead	100 ppm maximum.
Flash Point	100 °F minimum.

Used Oil Exceeding any Specification Level is Subject to This Subpart When Burned for Energy Recovery[a]—Continued

Constituent/property	Allowable level
Total Halogens	4,000 ppm maximum.[b]

[a] The specification does not apply to used oil fuel mixed with a hazardous waste other than small quantity generator hazardous waste.

[b] Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 266.40(c). Such used oil is subject to Subpart D of this part rather than this subpart when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

§ 266.41 Prohibitions.

(a) A person may market off-specification used oil for energy recovery only:

(1) To burners or other marketers who have notified EPA of their used oil management activities stating the location and general description of such activities, and who have an EPA identification number; and

(2) To burners who burn the used oil in an industrial furnace or boiler identified in paragraph (b) of this section.

(b) Off-specification used oil may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter; or

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that:

(A) The heater burns only used oil that the owner or operator generates or used oil received from do-it-yourself oil changers who generate used oil as household waste;

(B) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(C) The combustion gases from th
heater are vented to the ambient air.

§ 266.42 Standards applicable to gener
tors of used oil burned for energy r
covery.

(a) Except as provided in paragrapl
(b) and (c) of this section, generato
of used oil are not subject to this su
part.

(b) Generators who market used o
directly to a burner are subject
§ 266.43.

(c) Generators who burn used oil a
subject to § 266.44.

§ 266.43 Standards applicable to marke
ers of used oil burned for energy reco
ery.

(a) Persons who market used oil fu
are termed "marketers". Except
provided below, marketers inclu
generators who market used oil fu
directly to a burner, persons who r
ceive used oil from generators a
produce, process, or blend used oil fu
from these used oils (including perso
sending blended or processed used o
to brokers or other intermediaries
and persons who distribute but do n
process or blend used oil fuel. The fo
lowing persons are not marketers su
ject to this subpart:

(1) Used oil generators, and colle
tors who transport used oil receive
only from generators, unless the ge
erator or collector markets the use
oil directly to a person who burns
for energy recovery. However, perso
who burn some used oil fuel for pu
poses of processing or other treatme
to produce used oil fuel for marketi
are considered to be burning incide
tally to processing. Thus, generato
and collectors who market to such i
cidental burners are not markete
subject to this subpart;

(2) Persons who market only used o
fuel that meets the specification und
§ 266.40(e) and who are not the fir
person to claim the oil meets the spe
ification (i.e., marketers who do not r
ceive used oil from generators or in
tial transporters and marketers wh
neither receive nor market off-speci
cation used oil fuel).

(b) Marketers are subject to the fo
lowing requirements:

(1) *Analysis of used oil fuel.* Used oil fuel is subject to regulation under this subpart unless the marketer obtains analyses or other information documenting that the used oil fuel meets the specification provided under § 266.40(e).

(2) *Prohibitions.* The prohibitions under § 266.41(a);

(3) *Notification.* Notification to EPA stating the location and general description of used oil management activities. Even if a marketer has previously notified EPA of his hazardous waste management activities under section 3010 of RCRA and obtained a U.S. EPA Identification Number, he must renotify to identify his used oil management activities.

(4) *Invoice system.* When a marketer initiates a shipment of off-specification used oil, he must prepare and send the receiving facility an invoice containing the following information:

(i) An invoice number;

(ii) His own EPA identification number and the EPA identification number of the receiving facility;

(iii) The names and addresses of the shipping and receiving facilities;

(iv) The quantity of off-specification used oil to be delivered;

(v) The date(s) of shipment or delivery; and

(vi) The following statement: "This used oil is subject to EPA regulation under 40 CFR Part 266";

NOTE: Used oil that meets the definition of combustible liquid (flash point below 200 °F but at or greater than 100 °F) or flammable liquid (flash point below 100 °F) is subject to Department of Transportation Hazardous Materials Regulations at 49 CFR Parts 100 through 177.

(5) *Required notices.* (i) Before a marketer initiates the first shipment of off-specification used oil to a burner or other marketer, he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(A) The burner or marketer has notified EPA stating the location and general description of his used oil management activities; and

(B) If the recipient is a burner, the burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 266.41(b); and

(ii) Before a marketer accepts the first shipment of off-specification used oil from another marketer subject to the requirements of this section, he must provide the marketer with a one-time written and signed notice certifying that he has notified EPA of his used oil management activities; and

(6) *Recordkeeping*—(i) *Used oil fuel that meets the specification.* A marketer who first claims under paragraph (b)(1) of this section that used oil fuel meets the specification must keep copies of analysis (or other information used to make the determination) of used oil for three years. Such marketers must also record in an operating log and keep for three years the following information on each shipment of used oil fuel that meets the specification. Such used oil fuel is not subject to further regulation, unless it is subsequently mixed with hazardous waste or unless it is mixed with used oil so that it no longer meets the specification.

(A) The name and address of the facility receiving the shipment;

(B) The quantity of used oil fuel delivered;

(C) The date of shipment or delivery; and

(D) A cross-reference to the record of used oil analysis (or other information used to make the determination that the oil meets the specification) required under paragraph (b)(6)(i) of this section.

(ii) *Off-specification used oil fuel.* A marketer who receives or initiates an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received or prepared. In addition, a marketer must keep a copy of each certification notice that he receives or sends for three years from the date he last engages in an off-specification used oil fuel marketing transaction with the person who sends or receives the certification notice.

(The analysis requirements contained in paragraph (b)(1) of this section were approved by OMB under control number 2050-0047. The notification requirements contained in paragraph (b)(3) of this section were approved by OMB under control number 2050-0028. The invoice requirements contained in paragraph (b)(4) of this section were approved by OMB under control number 2050-0047. The certification requirements contained in paragraph (b)(5) of this section were approved by OMB under control number 2050-0047. The recordkeeping requirements contained in paragraph (b)(6) of this section were approved by OMB under control number 2050-0047.)

[50 FR 49205, Nov. 29, 1985, as amended at 52 FR 11822, Apr. 13, 1987]

§ 266.44 Standards applicable to burners of used oil burned for energy recovery.

Owners and operators of facilities that burn used oil fuel are "burners" and are subject to the following requirements:

(a) *Prohibition.* The prohibition under § 266.41(b);

(b) *Notification.* Burners of off-specification used oil fuel, and burners of used oil fuel who are the first to claim that the oil meets the specification provided under § 266.40(e), except burners who burn specification oil that they generate, must notify EPA stating the location and general description of used oil management activities. Burners of used oil fuel that meets the specification who receive such oil from a marketer that previously notified EPA are not required to notify. Owners and operators of used oil-fired space heaters that burn used oil fuel under the provisions of § 266.41(b)(2) are exempt from this notification requirement. Even if a burner has previously notified EPA of his hazardous waste management activities under section 3010 of RCRA and obtained an identification number, he must renotify to identify his used oil management activities.

(c) *Required notices.* Before a burner accepts the first shipment of off-specification used oil fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(1) He has notified EPA stating the location and general description of his used oil management activities; and

(2) He will burn the used oil only in an industrial furnace or boiler identified in § 266.41(b); and

(d) *Used oil fuel analysis.* (1) Used oil fuel burned by the generator is subject to regulation under this subpart unless the burner obtains analysis (or other information) documenting that the used oil meets the specification provided under § 266.40(e).

(2) Burners who treat off-specification used oil fuel by processing, blending, or other treatment to meet the specification provided under § 266.40(e) must obtain analyses (or other information) documenting that the used oil meets the specification.

(e) *Recordkeeping.* A burner who receives an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received. Burners must also keep for three years copies of analyses of used oil fuel as may be required by paragraph (d) of this section. In addition, he must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives off-specification used oil from that marketer.

(The notification requirements contained in paragraph (b) of this section were approved by OMB under control number 2050-0028. The certification requirements contained in paragraph (c) of this section were approved by OMB under control number 2050-0047. The analysis requirements contained in paragraph (d) of this section were approved by OMB under control number 2050-0047. The recordkeeping requirements contained in paragraph (e) of this section were approved by OMB under control number 2050-0047.)

[50 FR 49205, Nov. 29, 1985, as amended at 52 FR 11822, Apr. 13, 1987]

Subpart F—Recyclable Materials Utilized for Precious Metal Recovery

§ 266.70 Applicability and requirements.

(a) The regulations of this subpart apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, paladium, irridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this subpart are subject to the following requirements:

(1) Notification requirements under section 3010 of RCRA;

(2) Subpart B of Part 262 (for generators), §§ 263.20 and 263.21 (for transporters), and §§ 265.71 and 265.72

(for persons who store) of this chapter;

(c) Persons who store recycled materials that are regulated under this subpart must keep the following records to document that they are not accumulating these materials speculatively (as defined in § 261.1(c) of this chapter);

(1) Records showing the volume of these materials stored at the beginning of the calendar year;

(2) The amount of these materials generated or received during the calendar year; and

(3) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this subpart that are accumulated speculatively (as defined in § 261.1(c) of this chapter) are subject to all applicable provisions of Parts 262 through 265, 270 and 124 of this chapter.

Subpart G—Spent Lead-Acid Batteries Being Reclaimed

§ 266.80 Applicability and requirements.

(a) The regulations of this subpart apply to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport, or collect spent batteries, or who store spent batteries but do not reclaim them are not subject to regulation under Parts 262 through 266 or Part 270 or 124 of this chapter, and also are not subject to the requirements of section 3010 of RCRA.

(b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements.

(1) Notification requirements under section 3010 of RCRA;

(2) All applicable provisions in Subparts A, B (but not § 264.13 (waste analysis)), C, D, E (but not § 264.71 or § 264.72 (dealing with the use of the manifest and manifest discrepancies)), and F through L of Part 264 of this chapter;

[50 FR 666, Jan. 4, 1985, as amended at 50 FR 33543, Aug. 20, 1985]

PART 267—INTERIM STANDARDS FOR OWNERS AND OPERATORS OF NEW HAZARDOUS WASTE LAND DISPOSAL FACILITIES

Subpart A—General

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Subpart G—Underground Injection

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267.64 Additional requirements.

AUTHORITY: Secs. 1006, 2202(a), 3004 and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6905, 6912(a), 6924 and 6925.

SOURCE: 46 FR 12429, Feb. 13, 1981, unless otherwise noted.

Subpart A—General

§ 267.1 Purpose, scope and applicability.

(a) The purpose of this part is to establish minimum national standards that define the acceptable management of hazardous waste for new land disposal facilities.

(b) The regulations in this part apply to owners and operators of new hazardous waste landfills, surface impoundments, land treatment facilities and Class I underground injection wells (as defined in § 122.32(g) of this chapter) that require individual RCRA permits under 40 CFR Part 122.

(c) The requirements of this part do not apply to:

(1) A person disposing of hazardous waste by means of ocean disposal subject to a RCRA permit by rule issued under § 122.26(a) of this chapter.

(2) A person disposing of hazardous waste by means of underground injection subject to a RCRA permit by rule under § 122.26(b) of this chapter.

(3) An owner or operator of a POTW subject to a RCRA permit by rule under § 122.26(c) of this chapter.

(4) The owner or operator of a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Parts 262 through 265 and Parts 122 and 124 of this chapter by § 261.5 of this chapter;

(5) The owner or operator of a facility which treats or stores hazardous waste, which treatment or storage meets the criteria in § 261.6(A) of this chapter, except to the extent that § 261.6(b) of this chapter provides otherwise;

(6) A generator accumulating waste on-site in compliance with § 262.34 of this chapter;

(7) A farmer disposing of waste pesticides from his own use in compliance with § 262.51 of this chapter;

(8) The owner or operator of a totally enclosed treatment facility, as defined in § 260.10;

(9) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in § 260.10 of this chapter.

(10) Persons with respect to those activities that are carried out to immediately contain or treat a spill of hazardous waste or material which, when spilled, becomes a hazardous waste.

§ 267.2 Applicability of Part 264 standards.

In addition to the standards contained in this part, owners and operators of new hazardous waste landfills, surface impoundments, land treatment facilities and underground injection wells must comply with § 264.18 and Subparts B, C, D, E, G and H of Part 264.

§ 267.3 Duration of Part 267 standards and their relationship to permits.

(a) The regulations in this subpart are applicable, and will serve as a basis for issuing permits, to owners or operators of new hazardous waste landfills, surface impoundments, land treatment facilities, or underground injection facilities until final Part 264 regulations for such facilities become effective or until February 13, 1983, whichever is earlier.

(b) Only those owners and operators of new hazardous waste landfills, surface impoundments, land treatment facilities or underground injection wells who have applied for a permit and for whom public notice of the preparation of a draft permit has been issued under § 124.10 of this chapter by the date final Part 264 regulations for these facilities become effective or [2 years after date of publication], whichever is earlier, may be issued permits under the regulations in this part.

§ 267.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to section 7003 of RCRA.

§ 267.5 Additional permit procedures applicable to Part 267.

(a) The procedures for issuance, modification, revocation and reissuance, and termination of permits under this part are set forth in Part 124 of this chapter. In addition, the following procedures apply to permits under Part 267:

(1) Any facility for which a draft permit is prepared pursuant to this Part is a major hazardous waste management facility. A fact sheet shall be prepared for each such facility in accordance with § 124.8. Instead of the "brief summary of the basis for the draft permit conditions" required by § 124.8(b)(4), the fact sheet shall include a detailed discussion of basis for the draft permit conditions. This shall include a demonstration that relevant factors listed in Subparts C through G of this part were considered and a showing of how the draft permit reflects these considerations.

(2) The Administrator shall accept any petition under § 124.19 of this chapter and any appeal under § 124.125 of this chapter to review a permit issued under this part.

(b) The provisions of Subparts A and B in Part 122 of this chapter apply to permits under Part 267. In addition to the information required by § 122.4 and § 122.25 of this chapter, the applications for permits under this part must include the following information:

(1) For a landfill, sufficient information to demonstrate compliance with Subparts C and F of this part.

(2) For a surface impoundment, sufficient information to demonstrate compliance with Subparts D and F of this part.

(3) For a land treatment facility, sufficient information to demonstrate compliance with Subparts E and F of this part.

(4) For an underground injection well, sufficient information to demonstrate compliance with Subpart G of this part.

§ 267.6 Definitions.

Unless otherwise specified in this part, terms used in this regulation are defined in §§ 260.10 and 122.3 of this chapter.

Subpart B—Environmental Performance Standard

§ 267.10 Environmental performance standard.

All new landfills, surface impoundments, land treatment facilities and underground injection wells shall be located, designed, constructed, operated, maintained and closed in a manner that will assure protection of human health and the environment. Protection of human health and the environment shall include, but not be limited to:

(a) Prevention of adverse effects on ground-water quality considering:

(1) The volume and physical and chemical characteristics of the waste in the facility, including its potential for migration through soil or through synthetic liner materials;

(2) The hydrogeological characteristics of the facility and surrounding land;

(3) The quantity, quality and directions of ground-water flow;

(4) The proximity and withdrawal rates of ground-water users;

(5) The existing quality of ground-water, including other sources of contamination and their cumulative impact on the ground-water;

(6) The potential for health risks caused by human exposure to waste constituents;

(7) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents;

(8) The persistence and permanence of the potential adverse effects; and

(b) Prevention of adverse effects on surface water quality considering:

(1) The volume and physical and chemical characteristics of the waste in the facility;

(2) The hydrogeological characteristics of the facility and surrounding land, including the topography of the area around the facility;

(3) The quantity, quality and directions of groundwater flow;

(4) The patterns of rainfall in the region;

(5) The proximity of the facility to surface waters;

(6) The uses of nearby surface waters and any water quality standards established for those surface waters;

(7) The existing quality of surface water, including other sources of contamination and their cumulative impact on surface water;

(8) The potential for health risks caused by human exposure to waste constituents;

(9) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constitutents;

(10) The persistence and permanence of the potential adverse effects; and

(c) Prevention of adverse effects on air quality, considering:

(1) The volume and physical and chemical characteristics of the waste in the facility, including its potential for volatilization and wind dispersal;

(2) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

(3) The potential for health risks caused by human exposure to waste constitutents;

(4) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents;

(5) The persistence and permanence of the potential adverse effects; and

(d) Prevention of adverse effects due to migration of waste constituents in the subsurface environment, considering:

(1) The volume and physical and chemical characteristics of the waste in the facility, including its potential for migration through soil;

(2) The geologic characteristics of the facility and surrounding land;

(3) The patterns of land use in the region;

(4) The potential for migration of waste constituents into sub-surface physical structures;

(5) The potential for migration of waste constituents into the root zone of food-chain crops and other vegetation;

(6) The potential for health risks caused by human exposure to waste constituents;

(7) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents; and

(8) The persistence and permanence of the potential adverse effects.

Subpart C—Landfills

§ 267.20 Applicability.

The regulations in this subpart apply to owners and operators of new facilities that dispose of hazardous waste in landfills.

§ 267.21 General design requirements.

(a) Each landfill must include a liner designed to comply with § 267.10 of this part. The design of the facility liner must reflect a consideration of:

(1) The physical and chemical characteristics of the waste in the facility;

(2) The pressure head of leachate on the liner;

(3) Climatic conditions in the area;

(4) The permeability of the liner material, including compaction density and moisture content where earthen materials are present;

(5) The physical and chemical properties of the soil underlying the facility that supports any emplaced liner; and

(6) The potential for damage to the liner system that could occur during installation of any emplaced liner.

(b) Each landfill must include a leachate and runoff control system designed to comply with § 267.10 of this part. The design of the facility leachate and runoff control system must reflect a consideration of:

(1) The physical and chemical characteristics of the waste in the facility;

(2) Climatic conditions in the area;

(3) The volume of leachate or contaminated runoff that could be produced at the facility; and

(4) The available options for managing any leachate or contaminated runoff that is collected at the facility.

§ 267.22 General operating requirements.

(a) Incompatible wastes, or incompatible waste and materials, must not be placed in the same landfill, unless § 264.17(b) is complied with. The waste analysis plan required by § 264.13 must include the analysis needed to comply with this paragraph.

(b) Any emplaced liner material must be installed in a manner that will protect the function and physical integrity of the liner.

(c) The leachate and runoff control system must be operated and maintained in a manner that will comply with § 267.10 of this part. The procedures for operating the leachate and runoff control system must reflect a consideration of:

(1) The volume of leachate or contaminated runoff produced at the facility;

(2) The capacity of any leachate or runoff collection device at the facility;

(3) Climatic conditions in the area; and

(4) The quality of the leachate or runoff produced and the available alternatives for managing any leachate or contaminated runoff produced at the facility.

(d) The landfill must be inspected at a sufficient frequency to assure compliance with § 267.10 of this part.

§ 267.23 Closure and post-closure.

(a) A landfill must be closed in a manner that will comply with § 267.10 of this part. Closure must include placement of a final cover over the landfill, and the closure plan under § 264.112 of this chapter must specify the function and design of the cover. Proper closure of a landfill must reflect a consideration of:

(1) The type and amount of waste in the facility;

(2) The mobility and expected rate of migration of waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area;

(5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(6) Geological and soil profiles and surface and subsurface hydrology of the site.

(b) A landfill must be maintained in a manner that complies with § 267.10 of this part during the post-closure period. The post-closure plan under § 264.118 of this chapter must specify the procedures that will be used to satisfy this paragraph. Proper maintenance of a landfill during the post-closure period must reflect a consideration of:

(1) The type and amount of waste in the facility;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area;

(5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;

(6) Geological and soil profiles and surface and subsurface hydrology of the site; and

(7) The maintenance of any groundwater monitoring system or leachate and runoff control system at the facility.

§ 267.24 Treatment of waste.

The Regional Administrator may waive any of the requirements in §§ 267.21, 267.22 or 267.23 of this subpart where necessary to achieve treatment of hazardous waste in a landfill, provided that the waiver does not result in noncompliance with § 267.10.

§ 267.25 Additional requirements.

The Regional Administrator may place additional requirements on owners and operators of new landfills, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

Subpart D—Surface Impoundments

§ 267.30 Applicability.

The regulations in this subpart apply to owners and operators of new facilities that dispose of hazardous waste in surface impoundments.

§ 267.31 General design requirements.

(a) Each surface impoundment must include a liner designed to comply with § 267.10 of this part. The design of the facility liner must reflect a consideration of:

(1) The physical and chemical characteristics of the waste in the facility;

(2) The pressure head on the liner;

(3) Climatic conditions in the area;

(4) The permeability of the liner material, including compaction density and moisture content where earthen materials are present;

(5) The physical and chemical properties of the soil underlying the facility that supports any emplaced liner; and

(6) The potential for damage to the liner system that could occur during installation of any emplaced liner.

(b) Each surface impoundment must be designed so as to prevent overtopping due to wind and wave action, overfilling, precipitation or any combination thereof.

(c) Where dikes are part of the surface impoundment, the dikes must be designed to comply with § 267.10 of this part. The design of any facility dikes must reflect a consideration of:

(1) The structural integrity of the dike, including the effects of plants and burrowing animals on earthern dikes;

(2) The potential for water erosion of the dike; and

(3) The potential for wind erosion of the dike.

§ 267.32 General operating requirements.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same surface impoundment, unless § 264.17(b) is complied with. The waste analysis plan required by § 264.13 must include the analyses needed to comply with this paragraph.

(b) Any emplaced liner material must ber installed in a manner that will protect the function and physical integrity of the liner.

(c) The surface impoundment must be operated so as to prevent overtopping due to wind and wave action, overfilling, precipitation or any combination thereof.

(d) The surface impoundment must be inspected at a sufficient frequency to assure compliance with § 267.10 of this part.

§ 267.33 Closure and post-closure.

(a) A surface impoundment must be closed in a manner that will comply with § 267.10 of this part. Closure must include placement of a final cover over the surface impoundment, and the closure plan under § 264.112 of this chapter must specify the function and design of the cover. Proper closure of a surface impoundment must reflect a consideration of:

(1) The type and amount of waste in the facility, including the amount of free liquids;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area;

(5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope and type of vegetation on the cover;

(6) Geological and soil profiles and surface and subsurface hydrology of the site; and

(7) The potential for eliminating free liquids from the facility.

(b) A surface impoundment must be maintained in a manner that complies with § 267.10 of this part during the post-closure period. The post-closure plan under § 264.118 of this chapter must specify the procedures that will be used to satisfy this paragraph. Proper maintenance of a surface impoundment during the post-closure period must reflect a consideration of:

(1) The type and amount of waste in the facility;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area;

(5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;

(6) Geological and soil profiles and surface and subsurface hydrology of the site; and

(7) The maintenance of any ground-water monitoring system at the facility.

§ 267.34 Treatment of waste.

The Regional Administrator may waive any of the requirements in §§ 267.31, 267.32 or 267.33 of this subpart where necessary to achieve treatment of hazardous waste in a surface impoundment, provided that the waiver does not result in noncompliance.

§ 267.35 Additional requirements.

The Regional Administrator may place additional requirements on owners and operators of new surface impoundments, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

Subpart E—Land Treatment

§ 267.40 Applicability.

The regulations in this subpart apply to owners and operators of new facilities that dispose of hazardous waste in land treatment facilities.

§ 267.41 General design requirements.

Each land treatment facility must include a runoff control system designed to comply with § 267.10 of this part. The design of the facility runoff control system must reflect a consideration of:

(a) The physical, biological and chemical characteristics of the waste in the facility;

(b) Climatic conditions in the area;

(c) The volume of runoff that could be produced at the facility; and

(d) The available options for managing any contaminated runoff that is collected at the facility.

§ 267.42 General operating requirements.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same land treatment facility, unless § 264.17(b) is complied with. The waste analysis plan required by § 264.13 must include the analyses needed to comply with this paragraph.

(b) The runoff control system must be operated and maintained in a manner that will comply with § 267.10 of this part. The procedures for operating the runoff control system must reflect a consideration of:

(1) The volume of contaminated runoff produced at the facility;

(2) The capacity of any runoff collection device at the facility;

(3) Climatic conditions in the area; and

(4) The quality of the runoff produced and the available options for managing any contaminated runoff from the facility.

(c) The land treatment facility must be operated to treat the waste in the facility to the extent necessary to comply with § 267.10 of this part.

(d) If food-chain crops are grown at the facility, the facility must be operated in a manner designed to protect the quality of those crops to the extent necessary to comply with § 267.10 of this part. Proper operation of a land treatment facility on which food-chain crops are grown must reflect a consideration of:

(1) The characteristics of the soil, including the pH;

(2) The volume and chemical, biological and physical characteristics of the waste in the facility;

(3) The type of crop to be grown;

(4) The manner in which such crop marketed (e.g. direct sale to consumers, use as an animal feed grain);

(5) The potential future uses of the facility;

(6) The potential for crop uptake of waste constituents; and

(7) The potential exposure of workers who handle the crop to waste constituents.

(e) The treatment facility must be inspected at a sufficient frequency to assure compliance with § 267.10 of this part.

§ 267.43 Unsaturated zone monitoring.

In addition to the ground-water monitoring program required in Subpart F of this part, a land treatment facility must have an unsaturated zone monitoring program which will assure compliance with § 267.10. An unsaturated zone monitoring program must include an unsaturated zone monitoring system at the facility or at a representative test plot, as well as procedures for sampling, analysis and evaluation of data. The unsaturated zone monitoring program required by this paragraph must reflect a consideration of:

(a) The placement and depth of monitoring wells that is necessary to obtain a representative sample of the success of waste treatment in the facility;

(b) Soil characteristics, including its pH, its permeability and the level of microbial activity in the soil;

(c) Climatic conditions in the area;

(d) The potential for rapid migration of waste constituents through the soil; and

(e) The accessibility of the monitoring system devices for maintenance and repair.

§ 267.44 Closure and post-closure.

(a) A land treatment facility must be closed in a manner that will comply with § 267.10 of this part. The closure plan under § 264.112 of this chapter must specify the measures which will be used to satisfy this paragraph. Proper closure of a land treatment facility must reflect a consideration of:

(1) The type and amount of waste applied to the facility;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area, including the amount, frequency and pH of precipitation;

(5) Geologic and soil profiles and surface and subsurface hydrology of the site, including cation exchange capacity, total organic carbon and pH of the soil; and

(6) Unsaturated zone monitoring information obtained under § 267.43.

(b) A land treatment facility must be maintained in a manner that complies with § 267.10 of this part during the post-closure period. The post-closure plan under § 264.118 of this chapter must specify the procedures that will be used to satisfy this paragraph. Proper maintenance of a land treatment facility during the post-closure period must reflect a consideration of:

(1) The type and amount of waste applied to the facility;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area, including the amount, frequency and pH of precipitation;

(5) Geologic and soil profiles and surface and subsurface hydrology of the site, including cation exchange capacity, total organic carbon and pH of the soil;

(6) Unsaturated zone monitoring information obtained under § 267.43; and

(7) The maintenance of any ground-water monitoring system at the facility.

§ 267.45 Treatment of waste.

The Regional Administrator may waive any of the requirements in § 267.21, § 267.22 or § 267.23 of this subpart where necessary to achieve treatment of hazardous waste in a land treatment facility, provided that the waiver does not result in non-compliance with § 267.10.

§ 267.46 Additional requirements.

The Regional Administrator may place additional requirements on owners or operators of new land treatment facilities, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

Subpart F—Ground-Water Monitoring

§ 267.50 Applicability.

Each new hazardous waste landfill, surface impoundment, or land treatment facility must have a ground-water monitoring program, which includes a ground-water monitoring system, procedures for sampling, analysis and evaluation of ground-water data, and appropriate response procedures.

§ 267.51 Ground-water monitoring system.

The ground-water system required by this subpart must be capable of deermining the facility's impact on round-water in the uppermost aquifer so as to assure compliance with 267.10 of this part. The design of the round-water monitoring system must eflect a consideration of:

(a) The placement and depth of monitoring wells that is necessary to btain a representative sample of constituents in the uppermost aquifer, including those present in the groundwater upgradient from the facility;

(b) Measures such as casing which maintain the integrity of the monitorng well bore hole; and

(c) Measures which prevent contamination of ground-water samples.

267.52 Ground-water monitoring procedures.

(a) The ground-water monitoring rocedures required by this subpart must be capable of assuring complince with § 267.10 of this part. The rocedures must reflect a consideration of:

(1) Sample collection procedures;

(2) Sample preservation and shipment procedures;

(3) Analytical methods;

(4) Chain of custody control; and

(5) Evaluation procedures, including methods for determining the extent nd rate of migration of waste contituents.

(b) The ground-water monitoring rocedures required by this subpart must include appropriate procedures or when the ground-water monitoring rogram indicates that the facility is ot in compliance with § 267.10 of this art. Such response procedures must e contained in the contingency plan equired by Subpart D of Part 264.

267.53 Additional requirements.

The Regional Administrator may lace additional ground-water monioring requirements on owners or operators of facilities subject to this art, besides those otherwise required y this subpart, where necessary to omply with § 267.10 of this part.

Subpart G—Underground Injection

267.60 Applicability.

The regulations in this subpart pply to owners and operators of new facilities that dispose of hazard waste in underground injection wells which are classified as Class I under § 122.32(a) of this chapter.

§ 267.61 General design requirements.

An injection well must be designed to comply with § 267.10 of this part. The facility design must include measures (*e.g.* casing, tubing and packer set) to prevent the escape of injected fluids to the area above the zone of injection.

§ 267.62 General operating requirements.

An injection well must be operated in a manner that will comply with § 267.10 of this part. The methods for operating the injection well must reflect a consideration of:

(a) The volume and physical and chemical characteristics of the waste injected in the well;

(b) The injection pressure; and

(c) Monitoring measures to assure that the mechanical integrity of the well is maintained.

§ 267.63 Closure.

An injection well must be plugged and sealed at closure to prevent the escape of injected fluids to the area above the zone of injection.

§ 267.64 Additional requirements.

The Regional Administrator may place additional requirements on owners and operators of new injection wells, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

PART 268—LAND DISPOSAL RESTRICTIONS

Subpart A—General

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APPENDIX II—TREATMENT STANDARDS (AS CONCENTRATIONS IN THE TREATMENT RESIDUAL EXTRACT)
APPENDIX III—LIST OF HALOGENATED ORGANIC COMPOUNDS REGULATED UNDER § 268.32

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

Subpart A—General

SOURCE: 51 FR 40638, Nov. 7, 1986, unless otherwise noted.

§ 268.1 Purpose, scope and applicability.

(a) This part identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Except as specifically provided otherwise in this part or Part 261 of this chapter, the requirements of this part apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

(c) Prohibited wastes may continue to be land disposed as follows:

(1) Where persons have been granted an extension to the effective date of a prohibition under Subpart C of this part or pursuant to § 268.5, with respect to those wastes covered by the extension;

(2) Where persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) Where the waste is generated by small quantity generators of less than 100 kilograms of non-acute hazardous wastes per month or less than 1 kilogram acute hazardous waste per month, as defined in § 261.5 of this chapter; or

(4) Where a farmer is disposing of waste pesticides in accordance with § 262.70;

(5) Prior to May 8, 1990, in a landfill or surface impoundment unit where all applicable persons are in compliance with the requirements of § 268.8, with respect to wastes that are not subject to the treatment standards set forth in Subpart D and not subject to the prohibitions in § 268.32 or RCRA § 3004(d).

(d) The requirements of this part shall not affect the availability of a waiver under section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987; 53 FR 27165, July 19, 1988; 53 FR 31212, Aug. 17, 1988]

§ 268.2 Definitions applicable to this part.

(a) When used in this part the following terms have the meanings given below:

"*Halogenated organic compounds*" or "*HOCs*" means those compounds having a carbon-halogen bond which are listed under Appendix III to this part.

"*Hazardous constituent or constituents*" means those constituents listed in Appendix VIII to Part 261 of this chapter.

"*Land disposal*" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault or bunker intended for disposal purposes.

"*Polychlorinated biphenyls*" or "*PCBs*" are halogenated organic compounds defined in accordance with 40 CFR 761.3.

(b) All other terms have the meanings given under §§ 260.10, 261.2, 261.3, or 270.2 of this chapter.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987]

§ 268.3 Dilution prohibited as a substitute for treatment.

No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Subpart D of this part, to circumvent the effective date of a prohibition in Subpart C of this part, to otherwise avoid a prohibition in Subpart C of this part, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

[52 FR 25788, July 8, 1987]

§ 268.4 Treatment surface impoundment exemption.

(a) Wastes which are otherwise prohibited from land disposal under this part may be treated in a surface impoundment or series of impoundments provided that:

(1) Treatment of such wastes occurs in the impoundments;

(2) The following conditions are met:

(i) *Sampling and testing.* For wastes with treatment standards in Subpart D of this part and/or prohibition levels in Subpart C of this part or RCRA section 3004(d), the residues from treatment are analyzed, as specified in § 268.7 or § 268.32, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under § 264.13 or § 265.13, must be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.

(ii) *Removal.* The following treatment residues (including any liquid waste) must be removed at least annually: residues which do not meet the treatment standards promulgated under Subpart D of this part; residues which do not meet the prohibition levels established under Subpart C of this part or imposed by statute (where no treatment standards have been established); residues which are from the treatment of wastes prohibited from land disposal under Subpart C of this part (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under § 260.22 of this chapter. However, residues which are the subject of a valid certification under § 268.8 made no later than a year after placement of the wastes in an impoundment are not required to be removed annually. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.

(iii) *Subsequent management.* Treatment residues may not be placed in any other surface impoundment for subsequent management unless the residues are the subject of a valid certification under § 268.8 which allows disposal in surface impoundments meeting the requirements of section 268.8(a).

(iv) *Recordkeeping.* The procedures and schedule for the sampling of impoundment contents, the analysis of test data, and the annual removal of residues which do not meet the treatment standards, or prohibition levels (where no treatment standards have been established), or which are from the treatment of wastes prohibited from land disposal under Subpart C (where no treatment standards have been established and no prohibition levels apply), must be specified in the facility's waste analysis plan as required under § 264.13 or § 265.13 of this chapter.

(3) The impoundment meets the design requirements of § 264.221(c) or § 265.221(a) of this chapter, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of Subpart F of Part 264 or Part 264 of this chapter unless:

(i) Exempted pursuant to § 264.221 (d) or (e) of this chapter, or to § 265.221 (c) or (d) of this chapter; or,

(ii) Upon application by the owner or operator, the Administrator, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:

(A) Has at least one liner, for which there is no evidence that such liner is leaking;

(B) Is located more than one-quarter mile from an underground source of drinking water; and

(C) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or,

(iii) Upon application by the owner or operator, the Administrator, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(4) The owner or operator submits to the Regional Administrator a written certification that the requirements of § 268.4(a)(3) have been met and submits a copy of the waste analysis plan required under § 268.4(a)(2). The following certification is required:

> I certify under penalty of law that the requirements of 40 CFR 268.4(a)(3) have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this section.

[51 FR 40638 Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987; 53 FR 31212, Aug. 17, 1988]

§ 268.5 Procedures for case-by-case extensions to an effective date.

(a) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the Administrator for an extension to the effective date of any applicable restriction established under Subpart C of this part. The applicant must demonstrate the following:

(1) He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under Subpart C of this Part;

(2) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in Subpart D or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

(3) Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will

result in the capacity not being available by the applicable effective date;

(4) The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application;

(5) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(6) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(7) Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of paragraph (h)(2) of this section.

(b) An authorized representative signing an application described under paragraph (a) of this section shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(c) After receiving an application for an extension, the Administrator may request any additional information which he deems as necessary to evaluate the application.

(d) An extension will apply only to the waste generated at the individual facility covered by the application and will not apply to restricted waste from any other facility.

(e) On the basis of the information referred to in paragraph (a) of this section, after notice and opportunity for comment, and after consultation with appropriate State agencies in all affected States, the Administrator may grant an extension of up to 1 year from the effective date. The Administrator may renew this extension for up to 1 additional year upon the request of the applicant if the demonstration required in paragraph (a) of this section can still be made. In no event will an extension extend beyond 24 months from the applicable effective date specified in Subpart C of Part 268. The length of any extension authorized will be determined by the Administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in paragraph (a)(5) of this section. The Administrator will give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the FEDERAL REGISTER.

(f) Any person granted an extension under this section must immediately notify the Administrator as soon as he has knowledge of any change in the conditions certified to in the application.

(g) Any person granted an extension under this section shall submit written progress reports at intervals designated by the Administrator. Such reports must describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; must identify any event which may cause or has caused a delay in the development of the capacity; and must summarize the steps taken to mitigate the delay. The Administrator can revoke the extension at any time if the applicant does not demonstrate a good-faith effort to meet the schedule for completion, if the Agency denies or revokes any required permit, if conditions certified in the application change, or for any violation of this chapter.

(h) Whenever the Administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(1) The storage restrictions under § 268.50(a) do not apply; and

(2) Such hazardous waste may be disposed in a landfill or surface impoundment unit only if such unit is in compliance with the following requirements:

(i) The landfill, if in interim status, is in compliance with the requirements of Subpart F of Part 265 and § 265.301 (a), (c), and (d) of this chapter; or,

(ii) The landfill, if permitted, is in compliance with the requirements of Subpart F of Part 264 and § 264.301 (c), (d) and (e) of this chapter;

(iii) The surface impoundment, if in interim status, is in compliance with the requirements of Subpart F of Part 265, § 265.221 (a), (c), and (d) of this chapter, and RCRA section 3005(j)(1); or

(iv) The surface impoundment, if permitted, is in compliance with the requirements of Subpart F of Part 264 and § 264.221 (c), (d) and (e) of this chapter.

(v) The landfill, if disposing of containerized liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm, is also in compliance with the requirements of 40 CFR 761.75 and Parts 264 and 265.

(i) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(Approved by the Office of Management and Budget under control number 2050-0062)

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987; 53 FR 31212, Aug. 17, 1988]

§ 268.6 Petitions to allow land disposal of a waste prohibited under Subpart C of Part 268.

(a) Any person seeking an exemption from a prohibition under Subpart C of this part for the disposal of a restricted hazardous waste in a particular unit or units must submit a petition to the Administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration must include the following components:

(1) An identification of the specific waste and the specific unit for which the demonstration will be made;

(2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;

(3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality.

(4) A monitoring plan that detects migration at the earliest practicable time;

(5) Sufficient information to assure the Administrator that the owner or operator of a land disposal unit receiving restricted waste(s) will comply with other applicable Federal, State, and local laws.

(b) The demonstration referred to in paragraph (a) of this section must meet the following criteria:

(1) All waste and environmental sampling, test, and analysis data must be accurate and reproducible to the extent that state-of-the-art techniques allow;

(2) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters must have been approved by the Administrator;

(3) Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;

(4) A quality assurance and quality control plan that addresses all aspects of the demonstration must be approved by the Administrator; and,

(5) An analysis must be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis must include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(c) Each petition referred to in paragraph (a) of this section must include the following:

(1) A monitoring plan that describes the monitoring program installed at and/or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan must provide information on the monitoring of the unit and/or the environment around the unit. The following specific information must be included in the plan:

(i) The media monitored in the cases where monitoring of the environment around the unit is required;

(ii) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;

(iii) The location of the monitoring stations;

(iv) The monitoring interval (frequency of monitoring at each station);

(v) The specific hazardous constituents to be monitored;

(vi) The implementation schedule for the monitoring program;

(vii) The equipment used at the monitoring stations;

(viii) The sampling and analytical techniques employed; and

(ix) The data recording/reporting procedures.

(2) Where applicable, the monitoring program described in paragraph (c)(1) of this section must be in place for a period of time specified by the Administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.

(3) The monitoring data collected according to the monitoring plan specified under paragraph (c)(1) of this section must be sent to the Administrator according to a format and schedule specified and approved in the monitoring plan, and

(4) A copy of the monitoring data collected under the monitoring plan specified under paragraph (c)(1) of this section must be kept on-site at the facility in the operating record.

(5) The monitoring program specified under paragraph (c)(1) of this section meet the following criteria:

(i) All sampling, testing, and analytical data must be approved by the Administrator and must provide data that is accurate and reproducible.

(ii) All estimation and monitoring techniques must be approved by the Administrator.

(iii) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the Administrator.

(d) Each petition must be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator must report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change must be proposed, in writing, and the owner or operator must submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator will determine whether the proposed change invalidates the terms of the petition and will determine the appropriate response. Any change must be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to the Administrator within 10 days of discovering the change. The Administrator will determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator must:

(1) Immediately suspend receipt of restricted waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator will determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of Part 264 or Part 265.

(g) Each petition must include the following statement signed by the petitioner or an authorized representative:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(h) After receiving a petition, the Administrator may request any additional information that reasonably may be required to evaluate the demonstration.

(i) If approved, the petition will apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and will not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.

(j) The Administrator will give public notice in the FEDERAL REGISTER of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the FEDERAL REGISTER.

(k) The term of a petition granted under this section shall be no longer than the term of the RCRA permit if the disposal unit is operating under a RCRA permit, or up to a maximum of 10 years from the date of approval provided under paragraph (g) of this section if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a RCRA permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(l) Prior to the Administrator's decision, the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(m) The petition granted by the Administrator does not relieve the petitioner of his responsibilities in the management of hazardous waste under 40 CFR Part 260 through Part 271.

(n) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under this section.

(Approved by the Office of Management and Budget under control number 2050-0062)

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25789, July 8, 1987; 53 FR 31212, Aug. 17, 1988]

§ 268.7 Waste analysis.

(a) Except as specified in § 268.32 or section 268.43 of the part, the generator must test his waste, or test an extract developed using the test method described in Appendix I of this part, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this part.

(1) If a generator determines that he is managing a restricted waste under this part and the waste does not meet the applicable treatment standards set forth in Subpart D of this part or exceeds the applicable prohibition levels set forth in § 268.32 or RCRA § 3004(d), with each shipment of waste the generator must notify the treatment or storage facility in writing of the appropriate treatment standards set forth in Subpart D of this part and any applicable prohibition levels set forth in § 268.32 or RCRA § 3004(d). The notice must include the following information:

(i) EPA Hazardous Waste Number;

(ii) The corresponding treatment standards and all applicable prohibitions set forth in § 268.32 or RCRA section 3004(d);

(iii) The manifest number associated with the shipment of waste; and

(iv) Waste analysis data, where available.

(2) If a generator determines that he is managing a restricted waste under this part, and determines that the waste can be land disposed without further treatment, with each shipment of waste he must submit, to the treatment, storage, or land disposal facility, a notice and a certification stating that the waste meets the applicable treatment standards set forth in Subpart D of this part and the appli-

cable prohibition levels set forth in § 268.32 or RCRA § 3004(d).

(i) The notice must include the following information:

(A) EPA Hazardous Waste Number;

(B) The corresponding treatment standards and all appplicable prohibitions set forth in § 268.32 or RCRA section 3004(d);

(C) The manifest number associated with the shipment of waste;

(D) Waste analysis data, where available.

(ii) The certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possiblity of a fine and imprisonment.

(3) If a generator's waste is subject to a case by-case extension under § 268.5, an exemption under § 268.6, or a nationwide variance under Subpart C, with each shipment of waste, he must submit a notice to the facility receiving his waste stating that the waste is not prohibited from land disposal. The notice must include the following information:

(i) EPA Hazardous Waste Number;

(ii) The corresponding treatment standards and all applicable prohibitions set forth in § 268.32 or RCRA section 3004(d);

(iii) The manifest number associated with the shipment of waste;

(iv) Waste analysis data, where available; and

(v) The date the waste is subject to the prohibitions.

(4) If a generator determines that he is managing a waste that is subject to the prohibitions under § 268.33(f) of this part and is not subject to the prohibitions set forth in § 268.32 of this part, with each shipment of waste the generator must notify the treatment, storage, or disposal facility, in writing, of any applicable prohibitions set forth in § 268.33(f). The notice must include the following information:

(i) EPA Hazardous Waste Number;

(ii) The applicable prohibitions set forth in section 268.33(f);

(iii) The manifest number associated with the shipment of waste; and

(iv) Waste analysis data, where available.

(5) If a generator determines whether the waste is restricted based solely on his knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines whether the waste is restricted based on testing this waste or an extract developed using the test method described in Appendix I of this part, all waste analysis data must be retained on-site in the generator's files.

(6) Generators must retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(b) Treatment facilities must test their wastes according to the frequency specified in their waste analysis plans as required by § 264.13 or § 265.13. Such testing must be performed as provided in paragraphs (b)(1), (b)(2) and (b)(3) of this section.

(1) For wastes with treatment standards expressed as concentrations in the waste extract (§ 268.41), the owner or operator of the treatment facility must test the treatment residues, or an extract of such residues developed using the test method described in Appendix I of this part, to assure that the treatment residues or extract meet the applicable treatment standards.

(2) For wastes that are prohibited under § 268.32 of this part or RCRA section 3004(d) but not subject to any treatment standards under Subpart D of this part, the owner or operator of the treatment facility must test the

treatment residues according to the generator testing requirements specified in § 268.32 to assure that the treatment residues comply with the applicable prohibitions.

(3) For wastes with treatment standards expressed as concentrations in the waste (§ 268.43), the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.

(4) A notice must be sent with each waste shipment to the land disposal facility which includes the following information:

(i) EPA Hazardous Waste Number;

(ii) The corresponding treatment standards and all applicable prohibitions set forth in § 268.32 or RCRA section 3004(d);

(iii) The manifest number associated with the shipment of waste; and

(iv) Waste analysis data, where available.

(5) The treatment facility must submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the applicable performance standards specified in Subpart D of this part and the applicable prohibitions set forth in § 268.32 or RCRA section 3004(d).

(i) For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (§ 268.41 or § 268.43), or for wastes prohibited under § 268.32 of this part or RCRA section 3004(d) which are not subject to any treatment standards under Subpart D of this part, the certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(ii) For wastes with treatment standards expressed as technologies (§ 268.42), the certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(6) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this section.

(7) For wastes that are subject to the prohibitions under § 268.33(f) of this part and are not subject to the prohibitions set forth in § 268.32 of this part, with each shipment of such waste the owner or operator must notify any subsequent treatment, storage, or disposal facility, in writing, of any applicable prohibitions set forth in § 268.33(f). The notice must include the following information:

(i) EPA Hazardous Waste Number;

(ii) The applicable prohibitions set forth in section 268.33(f);

(iii) The manifest number associated with the shipment of waste; and

(iv) Waste analysis data, where available.

(8) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of § 266.20(b), the owner or operator of a treatment facility (the recycler) is not required to notify the receiving facility, pursuant to paragraph (b)(4) of this section. With each shipment of such wastes the owner or operator of the recycling facility must submit a certification described in paragraph (b)(5) of this section, and a notice which includes the information listed in paragraph (b)(4) of this section (except the manifest number) to the Regional Administrator, or his dele-

best copy available

gated representative. The recycling facility also must keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) The owner or operator of any land disposal facility disposing any waste subject to restrictions under this part must:

(1) Have copies of the notice and certifications specified in paragraph (a) or (b) of this section, and the certification specified in § 268.8 if applicable.

(2) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Appendix I of this part or using any methods required by generators under § 268.32 of this part, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Subpart D of this part and all applicable prohibitions set forth in § 268.32 of this part or in RCRA section 3004(d). Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by § 264.13 or § 265.13.

(3) Where the owner or operator is disposing of any waste that is subject to the prohibitions under § 268.33(f) of this part but not subject to the prohibitions set forth in § 268.32, he must ensure that such waste is the subject of a certification according to the requirements of § 268.8 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of § 268.5(h)(2). The same requirement applies to any waste that is subject to the prohibitions under § 268.33(f) of this Part and also is subject to the statutory prohibitions in RCRA section 3004(d) or the codified prohibitions in § 268.32 of this Part.

(Approved by the Office of Management and Budget under control number 2050-0062 and 2040-0042)

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25789, July 8, 1987; 53 FR 31213, Aug. 17, 1988; 54 FR 26648, June 23, 1989]

§ 268.8 Landfill and surface impoundment disposal restrictions.

(a) Prior to May 8, 1990, wastes which are otherwise prohibited from land disposal under § 268.33(f) of this part may be disposed in a landfill or surface impoundment which is in compliance with the requirements of § 268.5(h)(2) provided that the requirements of this section are met.

(1) Prior to such disposal, the generator has made a good faith effort to locate and contract with treatment and recovery facilities practically available which provide the greatest environmental benefit.

(2) Such generator submits to the Regional Administrator a demonstration and certification that the requirements of paragraph (a)(1) of this section have been met. The demonstration must include a list of facilities and facility officials contacted, addresses, telephone numbers, and contact dates.

(i) If a generator determines that there is no practically available treatment for his waste, he must indicate so in his demonstration, and provide a written discussion of why he was not able to obtain treatment or recovery for that waste. The generator must also provide the following certification:

> I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(ii) If a generator determines that there are practically available treatments for his waste, he must contract to use the practically available technology that yields the greatest environmental benefit, as indicated in his demonstration. He must provide the following certification:

> I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for sub-

mitting false information, including the possibility of fine and imprisonment.

(3) Where the generator has determined that there is no practically available treatment for his waste prior to disposal, with the initial shipment of waste, such generator must submit a copy of the demonstration and the certification required in paragraph (a)(2)(A) of this section to the receiving facility. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged. Such a generator must retain on-site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site disposal. The five-year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(4) Where the generator has determined that there is practically available treatment for his waste prior to disposal, with the initial shipment of waste, such generator must submit a copy of the demonstration and the certification required in paragraph (a)(2)(B) of this section to the receiving facility. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged. Such a generator must retain on-site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site disposal. The five-year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(b) After receiving the demonstration and certification, the Regional Administrator may request any additional information which he deems necessary to evaluate the certification.

(1) A generator who has submitted a certification under this section must immediately notify the Regional Administrator when he has knowledge of any change in the conditions which formed the basis of his certification.

(2) If, after review of the certification, the Regional Administrator determines that practically available treatment exists where the generator has certified otherwise, or that there exists some other method of practically available treatment yielding greater environmental benefit than that which the generator has certified, the Regional Administrator may invalidate the certification.

(3) If the Regional Administrator invalidates a certification, the generator must immediately cease further shipments of the waste, and inform all facilities that received the waste of such invalidation and keep records of such communication on-site in his files.

(c) A treatment, recovery or storage facility receiving wastes subject to a valid certification must keep copies of the generator's demonstration (if applicable) and certification in his operating record.

(1) The owner or operator of a treatment or recovery facility must certify that he has treated the waste in accordance with the generator's demonstration. The following certification is required:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(2) The owner or operator of a treatment, recovery or storage facility must send a copy of the generator's demonstration (if applicable) and certification under § 268.8(a)(2), and certification under § 268.8(c)(1) (if applicable) to the facility receiving the waste or treatment residues.

(d) The owner or operator of a disposal facility must ensure that those wastes prohibited under § 263.33(f) are subject to a certification according to the requirements of this section prior to disposal in a landfill or surface impoundment, and that the units receiving such wastes must meet the minimum technological requirements of § 268.5(h)(2).

(e) Once the certification is received by the Regional Administrator, and provided that the wastes have been treated by the treatment (if any), determined by the generator to yield the greatest environmental benefit practically available, the wastes or treatment residuals may be disposed in a landfill or surface impoundment unit meeting the requirements of § 268.5(h)(2), unless otherwise prohibited by the Regional Administrator.

(Approved by the Office of Management and Budget under control number 2050-0085).

[53 FR 31214, Aug. 17, 1988]

Subpart B—Schedule for Land Disposal Prohibition and Establishment of Treatment Standards

SOURCE: 51 FR 19305, May 28, 1986, unless otherwise noted.

§ 268.10 Identification of wastes to be evaluated by August 8, 1988.

EPA will take action under sections 3004(g)(5) and 3004(m), of the Resource Conservation and Recovery Act, by August 8, 1988, for the following wastes (for ease of understanding the wastes have been listed by the section of 40 CFR Part 261 under which they were listed):

§ 261.31 Wastes

F006—Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

F007—Spent cyanide plating bath solutions from electroplating operations.

F008—Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.

F009—Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

F019—Wastewater treatment sludges from the chemical conversion coating of aluminum.

§ 261.32 Wastes

K001—Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.

K004—Wastewater treatment sludge from the production of zinc yellow pigments.

K008—Oven residue from the production of chrome oxide green pigments.

K011—Bottom stream from the wastewater stripper in the production of acrylonitrile.

K013—Bottom stream from the acetonitrile column in the production of acrylonitrile.

K014—Bottoms from the acetonitrile purification column in the production of acrylonitrile.

K015—Still bottoms from the distillation of benzyl chloride.

K016—Heavy ends or distillation residues from the production of carbon tetrachloride.

K017—Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.

K018—Heavy ends from the fractionation column in ethyl chloride production.

K020—Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.

K021—Aqueous spent antimony catalyst waste from fluoromethanes production.

K022—Distillation bottom tars from the production of phenol/acetone from cumane.

K024—Distillation bottoms from the production of phthalic anhydride from naphthalene.

K030—Column bottom or heavy ends from the combined production of trichloroethylene and perchloroethylene.

K031—By-products salts generated in the production of MSMA and cacodylic acid.

K035—Wastewater treatment sludges generated in the production of creosote.

K036—Still bottoms from toluene reclamation distillation in the production of disulfoton.

K037—Wastewater treatment sludge from the production of disulfoton.

K044—Wastewater treatment sludges from the manufacturing and processing of explosives.

K045—Spent carbon from the treatment of wastewater containing explosives.

K046—Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.

K047—Pink/red water from TNT operations.

K048—Dissolved air flotation (DAF) float from the petroleum refining industry.

K049—Stop oil emulsion solids from the petroleum refining industry.

K050—Heat exchange bundle cleaning sludge from the petroleum refining industry.

K051—API separator sludge from the petroleum refining industry.

K052—Tank bottoms (leaded) from the petroleum refining industry.

K060—Ammonia still lime sludge from coking operations.

K061—Emission control dust/sludge from the primary production of steel in electric furnaces.

K062—Spent pickle liquor from steel finishing operations in chlorine production.

K069—Emission control dust/sludge from secondary lead smelting.

K071—Brine purification muds from the mercury cells process in chlorine production, where separately prepurified brine is not used.

K073—Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes

K083—Distillation bottoms from aniline production.

K084—Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K085—Distillation of fractionation column bottoms from the production of chlorobenzenes.

K086—Solvent washes and sludges; caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

K087—Decanter tank tar sludge from coking operations.

K099—Untreated wastewater from the production of 2,4-D.

K101—Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K102—Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K103- Process residues from aniline extraction from the production of aniline.

K104—Combined wastewater streams generated from nitrobenzene/aniline production.

K106—Waste water treatment sludge from the mercury cell process in chlorine production.

§ 261.33(e) Wastes

P001—Warfarin, when present at concentration greater than 0.3%

P004—Aldrin

P005—Allyl alcohol

P010—Arsenic acid

P011—Arsenic (V) oxide

P012—Arsenic (III) oxide

P015—Beryllium dust

P016—Bis-(chloromethyl) ether

P018—Brucine

P020—Dinoseb

P030—Soluble cyanide salts not elsewhere specified

P036—Dichlorophenylarsine

P037—Dieldrin

P039—Disulfoton

P041—Diethyl-p-nitrophenyl phosphate

P048—2,4-Dinitrophenol

P050—Endosulfan

P058—Fluoracetic acid, sodium salt

P059—Heptachlor

P063—Hydrogen cyanide

P068—Methyl Hydrazine

P069—Methyllactonitrile

P070—Aldicarb

P071—Methyl parathion

P081—Nitroglycerine

P082—N-Nitrosodimethylamine

P084—N-Nitrosomethylvinylamine

P087—Osmium tetraoxide

P089—Parathion

P092—Phenylmercuric acetate

P094—Phorate

P097—Famphur

P102—Propargyl alcohol

P105—Sodium azide

P108—Strychnine and salts

P110—Tetraethyl lead

P115—Thallium (I) sulfate

P120—Vanadium pentoxide

P122—Zinc phosphide, when present at concentrations greater than 10%

P123—Toxaphene

§ 261.33(f) Wastes

U007—Acrylamide

U009—Acrylonitrile

U010—Mitomycin C

U012—Aniline

U016—Benz(c)acridine

U018—Benz(a)anthracene

U019—Benzene

U022—Benzo(a)pyrene

U029—Methyl bromide

U031—n-Butanol

U036—Chlordane, technical

U037—Chlorobenzene

U041—n-Chloro-2,3-epoxypropane

U043—Vinyl chloride

U044—Chloroform

U046—Chloromethyl methyl ether

U050—Chrysene

U051—Creosote

U053—Crotonaldehyde

U061—DDT

U063—Dibenz o (a, h) anthracene

U064—1,2:7,8 Dibenzopyrene

U066—Dibromo-3-chloropropane 1,2-

U067—Ethylene dibromide
U074—1,4-Dichloro-2-butene
U077—Ethane, 1,2-dichloro-
U078—Dichloroethylene, 1,1-
U086—N,N Diethylhydrazine
U089—Diethylstilbestrol
U103—Dimethyl sulfate
U105—2,4-Dinitrotoluene
U108—Dioxane, 1,4-
U115—Ethylene oxide
U122—Formaldehyde
U124—Furan
U129—Lindane
U130—Hexachlorocyclopentadiene
U133—Hydrazine
U134—Hydrofluoric acid
U137—Indeno(1,2,3-cd)pyrene
U151—Mecury
U154—Methanol
U155—Methapyrilene
U157—3-Methylcholanthrene
U158—4,4-Methylene-bis-(2-chloroaniline)
U159—Methyl ethyl ketone
U171—Nitropropane, 2-
U177—N-Nitroso-N-methylurea
U180—N-Nitrosopyrrolidine
U185—Pentachloronitrobenzene
U188—Phenol
U192—Pronamide
U200—Reserpine
U209—Tetrachloroethane, 1,1,2,2-
U210—Tetrachloroethylene
U211—Carbon tetrachloride
U219—Thiourea
U220—Toluene
U221—Toluenediamine
U223—Toluene diisocyanate
U226—Methylchloroform
U227—Trichloroethane, 1,1,2-
U228—Trichloroethylene
U237—Uracil mustard
U238—Ethyl carbamate
U248—Warfarin, when present at concentrations of 0.3% or less
U249—Zinc phosphide, when present at concentrations of 10% or less

§ 268.11 Identification of wastes to be evaluated by June 8, 1989.

EPA will take action under sections 3004(g)(5) and 3004(m) of the Resource Conservation and Recovery Act, by June 8, 1989, for the following wastes (for ease of understanding the wastes have been listed by the section of 40 CFR Part 261 under which they were listed):

§ 261.31 Wastes

F010—Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process.

F011—Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

F012—Quenching wastewater treatment sludges from metal heat operations where cyanides are used in the process.

F024—Wastes including but not limited to, distillation residues, heavy ends, tars and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. [This listing does not include light ends, spent filters and filter aids, spend desiccants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.32.].

§ 261.32 Wastes

K009—Distillation bottoms from the production of acetaldehyde from ethylene.

K010—Distillation side cuts from the productions of acetaldehyde from ethylene.

K019—Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.

K025—Distillation bottoms from the production of nitrobenzene by the nitration of benzene.

K027—Centrifuge and distillation residues from toluene diisocyanate production.

K028—Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.

K029—Waste from the product steam stripper in the production of 1,1,1-trichloroethane.

K038—Wastewater from the washing and stripping of phorate production.

K039—Filter cake from the filtration of diethylphosphoro-dithioic acid in the production of phorate.

K040—Wastewater treatment sludge from the production of phorate.

K041—Wastewater treatment sludge from the production of toxaphene.

K042—Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.

K043—2,6-Dichlorophenol waste from the production of 2,4-D.

K095—Distillation bottoms from the production of 1,1,1-trichloroethane.

K096—Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

K097—Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.

K098—Untreated process wastewater from the production of toxaphene.

K105—Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

§ 261.33(e) Wastes

P002—1-Acetyl-2-thiourea
P003—Acrolein

P007—5-(Aminoethyl)-3-isoxazolol
P008—4-Aminopyridine
P014—Thiophenol
P026—1-(o-Chlorophenyl)thiourea
P027—Propanenitrile, 3-chloro
P029—Copper cyanides
P040—O,O-Diethyl o-pyrazinyl phosphorothioate
P043—Diisopropyl fluorophosphate
P044—Dimethoate
P049—2,4-Dithiobiuret
P054—Aziridine
P057—Fluoracetamide
P060—Isodrin
P062—Hexaethyltetraphosphate
P066—Methomyl
P067—2-Methylaziridine
P072—Alpha-naphthylthiourea (ANTU)
P074—Nickel cyanide
P085—Octamethylpyrophosphoramide
P098—Potassium cyanide
P104—Silver cyanide
P106—Sodium cyanide
P107—Strontium sulfide
P111—Tetraethylpyrophosphate
P112—Tetranitromethane
P113—Thallic oxide
P114—Thallium (I) selenite

§ 261.33(f) Wastes

U002—Acetone
U003—Acetonitrile
U005—o-Acetylaminofluorene
U008—Acrylic acid
U011—Amitrole
U014—Auramine
U015—Azaserine
U020—Benzenesulfonyl chloride
U021—Benzidine
U023—Benzotrichloride
U025—Dichloroethyl ether
U026—Chlornaphazine
U028—Bis-(2-ethylhexyl)phthalate
U032—Calcium chromate
U035—Chlorambucil
U047—Beta-chloronaphthalene
U049—4-Chloro-o-toluidine, hydrochloride
U057—Cyclohexanone
U058—Cyclophosphamide
U059—Daunomycin
U060—DDD
U062—Diallate
U070—o-Dichlorobenzene
U073—Dichlorobenzidene, 3,3-
U080—Methylene chloride
U083—Dichloropropane, 1,2-
U092—Dimethylamine
U093—Dimethylaminoazobenzene
U094—Dimethylbenz(a)anthracene,7,12-
U095—Dimethylbenzidine,3,3'-
U097—Dimethylcarbamoyl chloride
U098—Dimethylhydrazine, 1,1-
U099—Dimethylhydrazine, 1,2-
U101—Dimethylphenol, 2,4-
U106—Dinitrotoluene, 2,6-
U107—Di-n-octyl phthalate
U109—1,2,-Diphenylhydrazine
U110—Dipropylamine
U111—Di-N-Propylnitrosamine
U114—Ethylenebis-(dithiocarbamic acid)
U116—Ethylene thiourea
U119—Ethyl methanesulfonate
U127—Hexachlorobenzene
U128—Hexachlorobutadiene
U131—Hexachloroethane
U135—Hydrogen sulfide
U138—Methyl iodide
U140—Isobutyl alcohol
U142—Kepone
U143—Lasiocarpine
U144—Lead acetate
U146—Lead subacetate
U147—Maleic anhydride
U149—Malononitrile
U150—Melphalan
U161—Methyl isobutyl ketone
U162—Methyl methacrylate
U163—N-Methyl-N-nitro-N-nitrosoguanidine
U164—Methylthiouracil
U165—Naphthalene
U168—Napthylamine, 2-
U169—Nitrobenzene
U170—p-Nitrophenol
U172—N-Nitroso-di-n-butylamine
U173—N-Nitroso-diethanolamine
U174—N-Nitroso-diethylamine
U176—N-Nitroso-N-ethylurea
U178—N-Nitroso-N-methylurethane
U179—N-Nitrosopiperidine
U189—Phosphorus sulfide
U193—1,3-Propane sultone
U196—Pyridine
U203—Safrole
U205—Selenium disulfide
U206—Streptozotocin
U208—Terachloroethane, 1,1,1,2-
U213—Tetrahydrofuran
U214—Thallium (I) acetate
U215—Thallium (I) carbonate
U216—Thallium (I) chloride
U217—Thallium (I) nitrate
U218—Thioacetamide
U235—Tris (2,3-Dibromopropyl) phosphate
U239—Xylene
U244—Thiram

§ 268.12 Identification of wastes to be evaluated by May 8, 1990.

(a) EPA will take action under sections 3004(g)(5) and 3004(m) of the Resource Conservation and Recovery Act, by May 8, 1990, for the following wastes (for ease of understanding, the wastes have been listed by the section of 40 CFR Part 261 under which they were listed):

§ 261.32 Wastes

K002—Wastewater treatment sludge from the production of chrome yellow and orange pigments.

K003—Wastewater treatment sludge from the production of molybdate orange pigments.
K005—Wastewater treatment sludge from the production of chrome green pigments.
K006—Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007—Wastewater treatment sludge from the production of iron blue pigments.
K023—Distillation light ends from the production of phthalic anhydride from naphthalene.
K026—Stripping still tails from the production of methyl ethyl pyridines.
K032—Wastewater treatment sludge from the production of chlordane.
K033—Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034—Filter solids from the hexachlorocyclopentadiene in the production of chlordane.
K093—Distillation light ends from the production of phthalic anhydride from orthoxylene.
K094—Distillation bottoms from the production of phthalic anhydride from orthoxylene.
K100—Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.

§ 261.33(*e*) *Wastes*

P006—Aluminum phosphide
P009—Ammonium picrate
P013—Barium cyanide
P017—Bromoacetone
P021—Calcium cyanide
P022—Carbon disulfide
P023—Chloroacetaldehyde
P024—p-Chloroaniline
P028—Benzyl chloride
P031—Cyanogen
P033—Cyanogen chloride
P034—4,6-Dinitro-o-cyclohexylphenol
P038—Diethylarsine
P042—Epinephrine
P045—Thiofanox
P046—Alpha, alpha-Dimethylphenethylamine
P047—4,6-Dinitro-o-cresol and salts
P051—Endrin
P056—Fluorine
P064—Methyl isocyanate
P065—Mercury fulminate
P073—Nickel carbonyl
P075—Nicotine and salts
P076—Nitric oxide
P077—p-Nitroaniline
P078—Nitrogen dioxide
P088—Endothall
P093—N-Phenylthiourea
P095—Phosgene
P096—Phosphine
P099—Potassium silver cyanide
P101—Propanenitrile
P103—Selenourea
P109—Tetraethyldithiopyrophosphate
P116—Thiosemicarbazide
P118—Trichloromethanethiol
P119—Ammonium vanadate
P121—Zinc cyanide

§ 261.33(*f*) *Wastes*

U001—Acetaldehyde
U004—Acetophenone
U006—Acetyl chloride
U017—Benzal chloride
U024—Bis(2-chloroethoxy)methane
U027—Bis(2-chloroisopropyl)ether
U030—Benzene, 1-bromo-4-phenoxy
U033—Carbonyl fluoride
U034—Chloral
U038—Ethyl-4-4′-dichlorobenzilate
U039—4-Chloro-m-cresol
U042—Vinyl ether, 2-chloroethyl
U045—Methyl chloride
U048—o-Chlorophenol
U052—Cresols
U055—Cumene
U056—Cyclohexane
U068—Methane, dibromo
U069—Dibutyl phthalate
U071—m-Dichlorobenzene
U072—p-Dichlorobenzene
U075—Dichlorodifluoromethane
U076—Ethane, 1,1-dichloro-
U079—1,2-Dichlorethylene
U081—2,4-Dichlorophenol
U082—2,6-Dichlorophenol
U084—1,3-Dichloropropene
U085—2,2′-Bioxirane
U087—0,0,-Diethyl-S-methyl-dithiophosphate
U088—Diethyl phthalate
U090—Dihydrosafrole
U091—3,3′-Dimethoxybenzidine
U096—alpha,alpha-Dimethylbenzylhydroxyperoxide
U102—Dimethyl phthalate
U112—Ethyl acetate
U113—Ethyl acrylate
U117—Ethyl ether
U118—Ethylmethacrylate
U120—Fluoranthene
U121—Trichloromonofluoromethane
U123—Formic acid
U125—Furfural
U126—Glycidylaldehyde
U132—Hexachlorophene
U136—Cacodylic acid
U139—Iron dextran
U141—Isosafrole
U145—Lead phosphate
U148—Maleic hydrazide
U152—Methacrylonitrile
U153—Methanethiol
U156—Methyl chlorocarbonate
U160—Methyl ethyl ketone peroxide
U166—1,4-Naphthaquinone
U167—1-Naphthylamine
U181—5-Nitro-o-toluidine

U182—Paraldehyde
U183—Pentachlorobenzene
U184—Pentachloroethane
U186—1,3-Pentadiene
U187—Phenacetin
U190—Phthalic anhydride
U191—2-Picoline
U194—1-Propanamine
U197—p-Benzoquinone
U201—Resorcinol
U202—Saccharin and salts
U204—Selenious acid
U207—1,2,4,5-tetrachlorobenzene
U222—o-Toluidine hydrochloride
U225—Bromoform
U234—Sym-Trinitrobenzene
U236—Trypan blue
U240—2,4-D, salts and esters
U243—Hexachloropropene
U246—Cyanogen bromide
U247—Methoxychlor

Wastes identified as hazardous based on a characteristic alone (i.e., corrosivity, reactivity, ignitability and EP toxicity).

(b) Wastewater residues (less than 1% total organic carbon and less than 1% total suspended solids) resulting from the following well-designed and well-operated treatment methods for wastes listed in §§ 268.10 and 268.11 for which EPA has not promulgated wastewater treatment standards: metals recovery, metals precipitation, cyanide destruction, carbon adsorption, chemical oxidation, steam stripping, biodegradation, and incineration or other direct thermal destruction.

(c) Hazardous wastes listed in §§ 268.10 and 268.11 that are mixed hazardous/radioactive wastes.

(d) Multi-source leachate that is derived from disposal of any listed waste, except from Hazardous Wastes F020, F021, F022, F023, F026, F027, or F028.

(e) Nonwastewater forms of wastes listed in § 268.10 that were originally disposed before August 17, 1988 and for which EPA has promulgated "no land disposal" as the treatment standard (§ 268.43, Table CCW, No Land Disposal Subtable). This provision does not apply to waste codes K044, K045, K047, and K061 (high zinc subcategory).

(f) Nonwastewater forms of wastes listed in § 268.10 for which EPA has promulgated "no land disposal" as the treatment standard (§ 268.43, Table CCW, No Land Disposal Subtable) that are generated in the course of treating wastewater forms of the wastes. This provision does not apply to waste codes K044, K045, K047, and K061 (high zinc subcategory).

(g) Nonwastewater forms of waste codes K015 and K083.

[51 FR 19305, May 28, 1986, as amended at 53 FR 31215, Aug. 17, 1988; 54 FR 8266, Feb. 27, 1989; 54 FR 13837, May 2, 1989; 54 FR 26648, June 23, 1989]

§ 268.13 Schedule for wastes identified or listed after November 8, 1984.

In the case of any hazardous waste identified or listed under section 3001 after November 8, 1984, the Administrator shall make a land disposal prohibition determination within 6 months after the date of identification or listing.

Subpart C—Prohibitions on Land Disposal

SOURCE: 51 FR 40641, Nov. 7, 1986, unless otherwise noted.

§ 268.30 Waste specific prohibitions—Solvent wastes.

(a) Effective November 8, 1986, the spent solvent wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005, are prohibited under this part from land disposal (except in an injection well) unless one or more of the following conditions apply:

(1) The generator of the solvent waste is a small quantity generator of 100-1000 kilograms of hazardous waste per month; or

(2) The solvent waste is generated from any response action taken under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or any corrective action taken under the Resource Conservation and Recovery Act (RCRA), except where the waste is contaminated soil or debris; or

(3) The initial generator's solvent waste is a solventwater mixture, solvent-containing sludge or solid, or solventcontaminated soil (non-CERCLA or RCRA corrective action) containing less than 1 percent total F001-F005 solvent constituents listed in Table CCWE of § 268.41 of this part; or

(4) The solvent waste is a residue from treating a waste described in paragraphs (a)(1), (a)(2), or (a)(3) of this section; or the solvent waste is a residue from treating a waste not described in paragraphs (a)(1), (a)(2), or (a)(3) of this section provided such residue belongs to a different treatability group than the waste as initially generated and wastes belonging to such a treatability group are described in paragraph (a)(3) of this section.

(b) Effective November 8, 1988, the F001-F005 solvent wastes listed in paragraphs (a) (1), (2), (3), or (4) of this section are prohibited from land disposal.

(c) Effective November 8, 1990, the F001-F005 solvent wastes which are contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action required under subtitle C of the Resource Conservation and Recovery Act (RCRA) and the residues from treating these wastes are prohibited from land disposal. Between November 8, 1988, and November 8, 1990, these wastes may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(d) The requirements of paragraphs (a), (b), and (c) of this section do not apply if:

(1) The wastes meet the standards of Subpart D of this part; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes and units covered by the extension.

[53 FR 31216, Aug. 17, 1988]

§ 268.31 Waste specific prohibitions—Dioxin-containing wastes.

(a) Effective November 8, 1988, the dioxin-containing wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the following condition applies:

(1) The F020-F023 and F026-F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).

(b) Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes listed in paragraph (a)(1) of this section are prohibited from land disposal.

(c) Between November 8, 1988, and November 8, 1990, wastes included in paragraph (a)(1) of this section may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) and all other applicable requirements of Parts 264 and 265 of this chapter.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

(1) The wastes meet the standards of Subpart D of this part; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

[53 FR 31216, Aug. 17, 1988]

§ 268.32 Waste specific prohibitions—California list wastes.

(a) Effective July 8, 1987, the following hazardous wastes are prohibited from land disposal (except in injection wells):

(1) Liquid hazardous wastes having a pH less than or equal to two (2.0);

(2) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm;

(3) Liquid hazardous wastes that are primarily water and contain halogenated organic compounds (HOCs) in

total concentration greater than or equal to 1,000 mg/l and less than 10,000 mg/l HOCs.

(b)—(c) [Reserved]

(d) The requirements of paragraphs (a) and (e) of this section do not apply until:

(1) July 8, 1989 where the wastes are contaminated soil or debris not resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or a corrective action taken under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Between July 8, 1987 and July 8, 1989, the wastes may be disposed in a landfill or surface impoundment only if such disposal is in compliance with the requirements specified in § 268.5(h)(2).

(2) November 8, 1990 where the wastes are contaminated soil or debris resulting from a response action taken under section 104 or 106 of CERCLA or a corrective action taken under Subtitle C of RCRA. Between November 8, 1988, and November 8, 1990, the wastes may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(e) Effective November 8, 1988, the following hazardous wastes are prohibited from land disposal (subject to any regulations that may be promulgated with respect to disposal in injection wells):

(1) Liquid hazardous wastes that contain HOCs in total concentration greater than or equal to 1,000 mg/l and are not prohibited under paragraph (a)(3) of this section; and

(2) Nonliquid hazardous wastes containing HOCs in total concentration greater than or equal to 1,000 mg/kg and are not wastes described in paragraph (d) of this section.

(f) Between July 8, 1987 and November 8, 1988, the wastes included in paragraphs (e)(1) and (e)(2) of this section may be disposed in a landfill or surface impoundment only if such disposal is in compliance with the requirements specified in § 268.5(h)(2).

(g) The requirements of paragraphs (a), (d), and (e) of this section do not apply if:

(1) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition (except for liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm which are not eligible for such exemptions); or

(2) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension; or

(3) The wastes meet the applicable standards specified in Subpart D of this part or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibitions set forth in this section or RCRA section 3004(d).

(h) The prohibitions and effective dates specified in paragraphs (a)(3), (d), and (e) of this section do not apply where the waste is subject to a Part 268 Subpart C prohibition and effective date for a specified HOC (such as a hazardous waste chlorinated solvent, see e.g., § 268.30(a)).

(i) To determine whether or not a waste is a liquid under paragraphs (a) and (e) of this section and under RCRA section 3004(d), the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication No. SW-846. (Incorporated by reference, see § 260.11(a) of this chapter.)

(j) Except as otherwise provided in this paragraph, the waste analysis and recordkeeping requirements of § 268.7 are applicable to wastes prohibited under this part or RCRA section 3004(d):

(1) The initial generator of a liquid hazardous waste must test his waste (not an extract or filtrate) in accordance with the procedures specified in § 261.22(a)(1), or use knowledge of the waste, to determine if the waste has a pH less than or equal to two (2.0). If the liquid waste has a pH less than or equal to two (2.0), it is restricted from land disposal and all requirements of Part 268 are applicable, except as otherwise specified in this section.

(2) The initial generator of either a liquid hazardous waste containing polychlorinated biphenyls (PCBs) or a liquid or nonliquid hazardous waste containing halogenated organic compounds (HOCs) must test his waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in this section. If the concentration of PCBs or HOCs in the waste is greater than or equal to the prohibition levels specified in this section, the waste is restricted from land disposal and all requirements of Part 268 are applicable, except as otherwise specified in this section.

[52 FR 25790, July 8, 1987, as amended at 52 FR 41296, Oct. 27, 1987; 53 FR 31216, Aug. 17, 1988]

§ 268.33 Waste specific prohibitions—First Third Wastes

(a) Effective August 8, 1988, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. F006 (nonwastewater), K001, K004 (nonwastewater), K008 (nonwastewater), K015, K016, K018, K019, K020, K021 (nonwastewater), K022 (nonwastewater), K024, K025, K030, K036 (nonwastewater), K037, K044, K045, nonexplosive K046 (nonwastewater), K047, K060 (nonwastewater), K061 (nonwastewaters containing less than 15% zinc), K062, non $CaSO_4$ K069 (nonwastewaters), K083 (nonwastewaters), K086 (solvent washes), K087, K099, K100, K101, K102, K103, and K104 are prohibited from land disposal (except in an injection well).

(1) Effective August 8, 1988 and continuing until August 7, 1990, K061 wastes containing 15% zinc or greater are prohibited from land disposal pursuant to the treatment standards specified in § 268.41 applicable to K061 wastes that contain less than 15% zinc.

(b) Effective August 8, 1990, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K048, K049, K050, K051, K052, K061 (containing 15% zinc or greater), and K071 are prohibited from land disposal.

(c) Effective August 8, 1990, the wastes specified in 40 CFR 268.10 having a treatment standard in Subpart D of this part based on incineration and which are contaminated soil and debris are prohibited from land disposal.

(d) Between November 8, 1988 and August 8, 1990, wastes included in paragraphs (b) and (c) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(e) The requirements of paragraphs (a), (b), (c), and (d) of this section do not apply if:

(1) The wastes meet the applicable standards specified in Subpart D of this Part; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

(f) Between August 8, 1988, and May 8, 1990, the wastes specified in § 268.10 for which treatment standards under Subpart D of this Part are not applicable, including those wastes which are subject to the statutory prohibitions of RCRA section 3004(d) or codified prohibitions under § 268.32 of this Part, but not including wastes subject to a treatment standard under § 268.42 of this Part, are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to § 268.8.

(g) To determine whether a hazardous waste listed in § 268.10 exceeds the applicable treatment standards specified in § 268.41 and § 268.43, the initial generator must test a representative sample of the waste extract or the entire waste depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal and all requirements of Part 268 are applicable, except as otherwise specified.

[53 FR 31217, Aug. 17, 1988]

§ 268.34 Waste specific prohibitions—second third wastes.

(a) Effective June 8, 1989, the following wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F010; F024; the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K005, K007; K009 (nonwastewaters), K010; K023; K027; K028; K029 (nonwastewaters); K036 (wastewaters); K038; K039; K040; K043; K093; K094; K095 (nonwastewaters); K096 (nonwastewaters); K113; K114; K115; K116; and the wastes specified in 40 CFR 261.33 as EPA Hazardous Waste Nos. P013; P021; P029; P030; P039; P040; P041; P043; P044; P062; P063; P071; P074; P085; P089; P094: P097; P098; P099; P104; P106; P109; P111; P121; U028; U058; U069; U087; U088; U102; U107; U221; U223; and U235 are prohibited from land disposal.

(b) Effective June 8, 1989, the following wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K009 (wastewaters), K011 (nonwastewaters), K013 (nonwastewaters), and K014 (nonwastewaters) are prohibited from land disposal except when they are underground injected pursuant to 40 CFR 148.14(f) and 148.15(d).

(c) Effective July 8, 1989, the wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F006—cyanide (nonwastewater); F008; F009; F011 (wastewaters) and F012 (wastewaters) are prohibited from land disposal.

(1) Effective July 8, 1989, the following waste specified in 40 CFR 261.31 as EPA Hazardous Waste No. F007 is prohibited from land disposal except when it is underground injected pursuant to 40 CFR 148.14(f).

(2) Effective July 8, 1989 and continuing until December 8, 1989, F011 (nowastewaters) and F012 (nonwastewaters) are prohibited from land disposal pursuant to the treatment standards specified in §§ 268.41 and 268.43 applicable to F007, F008, and F009 nonwastewaters. Effective December 8, 1989 F011 (nowastewaters) and F012 (nonwastewaters) are prohibited from land disposal pursuant to the treatment standards specified in §§ 268.41 and 268.43 applicable to F011 (nonwastewaters) and F012 (nonwastewaters).

(d) Effective June 8, 1991, the wastes specified in this section having a treatment standard in Subpart D of this part based on incineration, and which are contaminated soil and debris are prohibited from land disposal.

(e) Between June 8, 1989 and June 8, 1991, (for wastes F007, F008, F009, F011, and F012 between June 8, 1989 and July 8, 1989) wastes included in paragraphs (c) and (d) of this section may be disposed in a landfill or surface impoundment, regardless whether such unit is a new, replacement, or lateral expansion unit, only if such unit is in compliance with the technical requirements specified in § 268.5(h)(2).

(f) The requirements of paragraphs (a), (b), (c), and (d) of this section do not apply if:

(1) The wastes meet the applicable standards specified in Subpart D of this Part; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition.

(g) The requirements of paragraphs (a), (b), and (c) of this section do not apply if persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

(h) Between June 8, 1989 and May 8, 1990, the wastes specified in § 268.11 for which treatment standards under Subpart D of this Part are not applicable, including California list wastes subject to the statutory prohibitions of RCRA section 3004(d) or codified prohibitions under § 268.32, are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to § 268.8.

(i) To determine whether a hazardous waste listed in §§ 268.10, 268.11, and 268.12 exceeds the applicable treatment standards specified in §§ 268.41 and 268.43, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal and all requirements of Part 268 are applicable, except as otherwise specified.

[54 FR 26648, June 23, 1989]

Subpart D—Treatment Standards

SOURCE: 51 FR 40642, Nov. 7, 1986, unless otherwise noted.

§ 268.40 Applicability of treatment standards.

(a) A restricted waste identified in § 268.41 may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using the test method in Appendix I of this part does not exceed the value shown in Table CCWE of § 268.41 for any hazardous constituent listed in Table CCWE for that waste.

(b) A restricted waste for which a treatment technology is specified under § 268.42(a) may be land disposed after it is treated using that specified technology or an equivalent treatment method approved by the Administrator under the procedures set forth in § 268.42(b).

(c) A restricted waste identified in § 268.43 may be land disposed only if the constituent concentrations in the waste or treatment residue of the waste do not exceed the value shown in Table CCW of § 268.43 for any hazardous constituent listed in Table CCW for that waste.

[52 FR 25790, July 8, 1987, as amended at 53 FR 31217, Aug. 17, 1988]

§ 268.41 Treatment standards expressed as concentrations in waste extract.

(a) Table CCWE identifies the restricted wastes and the concentrations of their associated hazardous constituents which may not be exceeded by the in Appendix I of this part for the allowable land disposal of such waste. (Appendix II of this part provides Agency guidance on treatment methods that have been shown to achieve the Table CCWE levels for the respective wastes. Appendix II is not a regulatory requirement but is provided to assist generators and owners/operators in their selection of appropriate treatment methods.)

TABLE CCWE—CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT

F001—F005 spent solvents	Concentration (in mg/l)	
	Wastewaters containing spent solvents	All other spent solvent wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	.05	.96
Chlorobenzene	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone	.125	.75
1,2-Dichlorobenzene	.65	.125
Ethyl acetate	.05	.75
Ethylbenzene	.05	.053
Ethyl ether	.05	.75
Isobutanol	5.0	5.0
Methanol	.25	.75
Methylene chloride	.20	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

F006 nonwastewaters (see also Table CCW in § 268.43)	Concentration (in mg/1)
Cadmium	0.066
Chromium (Total)	5.2
Lead	.51
Nickel	.32
Silver	.072

F007, F008, and F009 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Cadmium	0.066
Chromium (total)	5.2
Lead	0.51
Nickel	0.32
Silver	0.072

F011 and F012 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Cadmium	0.066
Chromium (total)	5.2
Lead	0.51
Nickel	0.32
Silver	0.072

F020–F023 and F026–F028 dioxin containing wastes	Concentration
HxCDD—All Hexachlorodibenzo-p-dioxins	< 1 ppb
HxCDF—All Hexachlorodibenzofurans	< 1 ppb
PeCDD—All Pentachlorodibenzo-p-dioxins	< 1 ppb

F020-F023 and F026-F028 dioxin containing wastes	Concentration
PeCDF—All Pentachlorodibenzofurans	< 1 ppb
TCDD—All Tetrachlorodibenzo-p-dioxins	< 1 ppb
TCDF—All Tetrachlorodibenzofurans	< 1 ppb
2,4,5-Trichlorophenol	< 0.05 ppm
2,4,6-Trichlorophenol	< 0.05 ppm
2,3,4,6-Tetrachlorophenol	< 0.10 ppm
Pentachlorophenol	< 0.01 ppm

F024 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Chromium (total)	Reserved.
Nickel	Reserved.

K001 nonwastewaters (see also Table in § 268.43)	Concentration (in mg/l)
Lead	0.51

K022 nonwastewaters (see also Table CCW in § 268.43)	Concentration (in mg/l)
Chromium (Total)	5.2
Nickel	0.32

K028 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Chromium (total)	Reserved.
Nickel	Reserved.

K046 nonwastewaters (Nonreactive Subcategory)	Concentration (in mg/l)
Lead	0.18

K048, K049, K050, K051 and K052 nonwastewaters (see also Table CCW in § 268.43)	Concentration (in mg/l)
Arsenic	0.004
Chromium (Total)	1.7
Nickel	.048
Selenium	.025

K061 nonwastewaters (Low Zinc Subcategory—less than 15% total zinc)	Concentration (in mg/l)
Cadmium	0.14
Chromium (Total)	5.2
Lead	.24
Nickel	.32

K061 nonwastewaters (High Zinc Subcategory—15% or greater total zinc): effective until 8/8/90	Concentration (in mg/l)
Cadmium	0.14
Chromium (Total)	5.2
Lead	.24
Nickel	.32

K062 nonwastewaters	Concentration (in mg/l)
Chromium (Total)	0.094
Lead	.37

K071 nonwastewaters	Concentration (in mg/l)
Mercury	0.025

K086 nonwastewaters (Solvent Washes Subcategory) see also Table CCW in § 268.43)	Concentration (in mg/l)
Chromium (Total)	0.094
Lead	.37

K087 nonwastewaters (see also Table CCW in § 268.43)	Concentration (in mg/l)
Lead	0.51

K101 and K102 nonwastewaters (Low Arsenic Subcategory—less than 1% Total Arsenic) (see also Table CCW in § 268.43)	Concentration (in mg/l)
Cadmium	0.066
Chromium (Total)	5.2
Lead	.51
Nickel	.32

K115 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Nickel	0.32

P074 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Nickel	0.32

P099 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Silver	0.072

P104 nonwastewaters (see also table CCW in § 268.43)	Concentration (in mg/l)
Silver	0.072

(b) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

[51 FR 40642, Nov. 7, 1986; 52 FR 21017, June 4, 1987, as amended at 53 FR 31217, Aug. 17, 1988; 54 FR 26649, June 23, 1989]

§ 268.42 Treatment standards expressed as specified technologies.

(a) The following wastes must be treated using the identified technology or technologies, or an equivalent method approved by the Administrator.

(1) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70 or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment under this section must also be in compliance with applicable regulations in Parts 264, 265, and 266.

(2) Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentration greater than or equal to 1,000 mg/kg and liquid HOC-containing wastes that are prohibited under § 268.32(e)(1) of this part must be incinerated in accordance with the requirements of Part 264, Subpart O or Part 265, Subpart O, or in boilers or industrial furnaces burning in accordance with applicable regulatory standards. These treatment standards do not apply where the waste is subject to a Part 268, Subpart C treatment standard for a specific HOC (such as a hazardous waste chlorinated solventfor which a treatment standard is established under § 268.41(a)).

(3) The nonwastewater form of the following hazardous wastes listed in §§ 268.10, 268.11, and 268.12 must be incinerated in accordance with the requirements of Part 264, Subpart O, or Part 265, Subpart O, or burned in boilers or industrial furnaces burning in accordance with applicable regulatory standards: K027, K039, K113, K114, K115, K116, P040, P041, P043, P044, P062, P085, P109, P111, U058, U087, U221, and U223.

(4) The wastewater form of the following hazardous wastes listed in §§ 268.10, 268.11, and 268.12 must be treated by carbon adsorption, or incineration, or pretreatment followed by carbon adsorption: K027, K039, K113, K114, K115, K116, P040, P041, P043, P044, P062, P085, P109, P111, U058, U087, U221, and U223.

(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achievable by methods specified in paragraph (a) of this section. The applicant must submit information demonstrating that his treatment method is in compliance with Federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraph (a) of this section. Any approval must be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

[51 FR 40642, Nov. 7, 1986, as amended at 52 FR 25790, July 8, 1987; 53 FR 31218, Aug. 17, 1988; 54 FR 26649, June 23, 1989]

§ 268.43 Treatment standards expressed as waste concentrations.

(a) Table CCW identifies the restricted wastes and the concentrations of their associated hazardous constituents which may not be exceeded by the waste or treatment residual (not an extract of such waste or residual) for the allowable land disposal of such waste or residual. The wastewater and nonwastewater treatment standards in Table CCW are based on analysis of grab samples except the wastewater treatment standards that are based on analysis of composite samples for wastes, K009, K010, K036, K038, K040, P039, P071, P089, P094, P097, and U235.

TABLE CCW—CONSTITUENT CONCENTRATIONS IN WASTES

F001, F002, F003, F004 and F005 wastewaters (Pharmaceutical Industry)	Concentration (in mg/1)
Methylene chloride	0.44

F006 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	590
Cyanides (Amenable)	30

F007, F008, and F009 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	590
Cyanides (Amenable)	30

F007, F008, and F009 wastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10
Chromium (Total)	0.32
Lead	0.04
Nickel	0.44

F010 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	1.5

F010 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

F011 and F012 nonwastewaters [1]	Concentratio (in mg/kg
Cyanides (Total)	110
Cyanides (Amenable)	9.1

[1] Effective December 8, 1989; from July 8, 1989 un December 8, 1989, these wastes are subject to the sam treatment standards as F007, F008, and F009 no wastewaters (see also Table CCWE in § 268.41).

F011 and F012 wastewaters (see also Table CCWE in § 268.41)	Concentratio (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10
Chromium (Total)	0.32
Lead	0.04
Nickel	0.44

F024 nonwastewaters (see also Table CCWE in § 268.41)	Concentratio (in mg/kg
2-Chloro-1,3-butadiene	0.28
3-Chloropropene	0.28
1,1-Dichloroethane	0.014
1,2-Dichloroethane	0.014
1,2-Dichloropropane	0.014
cis-1,3-Dichloropropene	0.014
trans-1,3-Dichloropropene	0.014
Bis(2-ethylhexyl)phthalate	1.8
Hexachloroethane	1.8
Hexachlorodibenzo-furans	0.001
Hexachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzo-furans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzo-furans	0.001

F024 wastewaters (see also Table CCWE in § 268.41)	Concentratio (in mg/l)
2-Chloro-1,3-butadiene	0.28
3-Chloropropene	0.28
1,1-Dichloroethane	0.014
1,2-Dichloroethane	0.014
1,2-Dichloropropane	0.014
cis-1,3-Dichloropropene	0.014
trans-1,3-Dichloropropene	0.014
Bis(2-ethylhexyl) phthalate	0.036
Hexachloroethane	0.036
Hexachlorodibenzo-furans	0.001
Hexachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzo-furans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzo-furans	0.001
Chromium (Total)	0.35
Nickel	0.47

K001 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/ kg)
Naphthalene	8.0
Pentachlorophenol	37
Phenanthrene	8.0
Pyrene	7.3
Toluene	.14

K001 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Xylenes	16

K001 wastewaters	Concentration (in mg/1)
Naphthalene	0.15
Pentachlorophenol	88
Phenanthrene	.15
Pyrene	.14
Toluene	.14
Xylenes	16
Lead	.037

K009 and K010 nonwastewaters	Concentration (in mg/kg)
Chloroform	6.0

K009 and K010 wastewaters	Concentration (in mg/l)
Chloroform	0.10

K011, K013, and K014 nonwastewaters	Concentration (in mg/kg)
Acetonitrile	1.8
Acrylonitrile	1.4
Acrylamide	23
Benzene	0.03
Cyanides (Total)	57

K015 wastewaters	Concentration (in mg/1)
Anthracene	1.0
Benzal chloride	.28
Benzo (b and/or k) fluoranthene	.29
Phenanthrene	.27
Toluene	.15
Chromium (Total)	.32
Nickel	.44

K016 nonwastewaters	Concentration (in mg/kg)
Hexachlorobenzene	28
Hexachlorobutadiene	5.6
Hexachlorocyclopentadiene	5.6
Hexachloroethane	28
Tetrachloroethene	6.0

K016 wastewaters	Concentration (in mg/1)
Hexachlorobenzene	0.033
Hexachlorobutadiene	.007
Hexachlorocyclupentadiene	.007
Hexachloroethane	.033
Tetrachloroethene	.007

K018 nonwastewaters	Concentration (in mg/kg)
Chloroethane	6.0
1,1-Dichloroethane	6.0
1,2-Dichloroethane	6.0
Hexachlorobenzene	28
Hexachlorobutadiene	5.6
Hexachloroethane	28
Pentachloroethane	5.6
1,1,1-Trichloroethane	6.0

K018 wastewaters	Concentration (in mg/1)
Chloroethane	0.007
Chloromethane	.007
1,1-Dichloroethane	.007
1,2-Dichloroethane	.007
Hexachlorobenzene	.033
Hexachlorobutadiene	.007
Pentachloroethane	.007
1,1,1-Trichloroethane	.007

K019 nonwastewaters	Concentration (in mg/kg)
Bis(2-chloroethyl)ether	5.6
Chlorobenzene	6.0
Chloroform	6.0
1,2-Dichloroethane	6.0
Hexachloroethane	28
Naphthalene	5.6
Phenanthrene	5.6
Tetrachloroethene	6.0
1,2,4-Trichlorobenzene	19
1,1,1-Trichloroethane	6.0

K019 wastewaters	Concentration (in mg/1)
Bis(2-chloroethyl)ether	0.007
Chlorobenzene	.006
Chloroform	.007
p-Dichlorobenzene	.008
1,2-Dichloroethane	.007
Fluorene	.007
Hexachloroethane	.033
Naphthalene	.007
Phenanthrene	.007
1,2,4,5-Tetrachlorobenzene	.017
Tetrachloroethene	.007
1,2,4-Trichlorobenzene	.023

K019 wastewaters	Concentration (in mg/1)
1,1,1-Trichloroethane	.007

K020 nonwastewaters	Concentration (in mg/kg)
1,2-Dichloroethane	6.0
1,1,2,2-Tetrachloroethane	5.6
Tetrachloroethene	6.0

K020 wastewaters	Concentration (in mg/1)
1,2-Dichloroethane	0.007
1,1,2,2-Tetrachloroethane	.007
Tetrachloroethene	.007

K022 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Acetophenone	19
Sum of Diphenylamine and Diphenylnitrosamine	13
Phenol	12
Toluene	0.034

K023, K093, and K094 nonwastewaters	Concentration (in mg/kg)
Phthalic anhydride (measured as Phthalic acid)	28

K023, K093, and K094 wastewaters	Concentration (in mg/l)
Phthalic anhydride (measured as Phthalic acid)	0.54

K024 nonwastewaters	Concentration (in mg/kg)
Phthalic anhydride (measured as Phthalic acid)	28

K024 wastewaters	Concentration (in mg/l)
Phthalic anhydride (measured as Phthalic acid)	0.54

K028 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
1,1-Dichloroethane	6.0
trans-1,2-Dichloroethane	6.0
Hexachlorobutadiene	5.6
Hexachloroethane	28
Pentachloroethane	5.6
1,1,1,2-Tetrachloroethane	5.6
1,1,2,2-Tetrachloroethane	5.6
1,1,1-Trichloroethane	6.0
1,1,2-Trichloroethane	6.0
Tetrachloroethylene	6.0

K028 wastewaters	Concentration (in mg/l)
1,1-Dichloroethane	0.007
trans-1,2-Dichloroethane	0.033
Hexachlorobutadiene	0.007
Hexachloroethane	0.033
Pentachloroethane	0.033
1,1,1,2-Tetrachloroethane	0.007
1,1,2,2-Tetrachloroethane	0.007
Tetrachloroethylene	0.007
1,1,1-Trichloroethane	0.007
1,1,2-Trichloroethane	0.007
Cadmium	6.4
Chromium (Total)	0.35
Lead	0.037
Nickel	0.47

K029 nonwastewaters	Concentration (in mg/kg)
Chloroform	6.0
1,2-Dichloroethane	6.0
1,1-Dichloroethylene	6.0
1,1,1-Trichloroethane	6.0
Vinyl chloride	6.0

K030 nonwastewaters	Concentration (in mg/kg)
Hexachlorobutadiene	5.6
Hexachloroethane	28
Hexachloropropene	19
Pentachlorobenzene	28
Pentachloroethane	5.6
1,2,4,5-Tetrachlorobenzene	14
Tetrachloroethene	6.0
1,2,4-Trichlorobenzene	19

K030 wastewaters	Concentration (in mg/1)
o-Dichlorobenzene	0.008
p-Dichlorobenzene	.008
Hexachlorobutadiene	.007
Hexachloroethane	.033
Pentachloroethane	.007
1,2,4,5-Tetrachlorobenzene	.017
Tetrachloroethene	.007
1,2,4-Trichlorobenzene	.023

K036 wastewaters	Concentration (in mg/l)
Disulfoton	0.025

K037 nonwastewaters	Concentration (in mg/kg)
Disulfoton	0.1
Toluene	28

K037 wastewaters	Concentration (in mg/1)
Disulfoton	0.003
Toluene	.028

K038 and K040 nonwastewaters	Concentration (in mg/kg)
Phorate	0.1

K038 and K040 wastewaters	Concentration (in mg/l)
Phorate	0.025

K043 nonwastewaters	Concentration (in mg/kg)
2,4-Dichlorophenol	0.38
2,6-Dichlorophenol	0.34
2,4,5-Trichlorophenol	8.2
2,4,6-Trichlorophenol	7.6
Tetrachlorophenols (Total)	0.68
Pentachlorophenol	1.9
Tetrachloroethene	1.7
Hexachlorodibenzo-p-dioxins	0.001
Hexachlorodibenzo-furans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzo-furans	0.001
Tetrachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzo-furans	0.001

K043 wastewaters	Concentration (in mg/l)
2,4-Dichlorophenol	0.049
2,6-Dichlorophenol	0.013
2,4,5-Trichlorophenol	0.016
2,4,6-Trichlorophenol	0.039
Tetrachlorophenols (Total)	0.018
Pentachlorophenol	0.22
Tetrachloroethene	0.006
Hexachlorodibenzo-p-dioxins	0.001
Hexachlorodibenzo-furans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzo-furans	0.001
Tetrachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzo-furans	0.001

K048 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Benzene	9.5
Benzo(a)pyrene	.84
Bis(2-ethylhexyl)phthalate	37
Chrysene	2.2
Di-n-butyl phthalate	4.2
Ethylbenzene	67
Naphthalene	[Reserved]
Phenanthrene	7.7
Phenol	2.7
Pyrene	2.0
Toluene	9.5
Xylenes	[Reserved]
Cyanides (Total)	1.8

K048 wastewaters	Concentration (in mg/1)
Benzene	0.011
Benzo(a)pyrene	.047
Bis(2-ethylhexyl)phthalate	.043
Chrysene	.043
Di-n-butyl phthalate	.060
Ethylbenzene	.011
Fluorene	.050
Naphthalene	.033
Phenanthrene	.039
Phenol	.047
Pyrene	.045
Toluene	.011
Xylenes	.011
Chromium (Total)	.20
Lead	0.37

K049 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Anthracene	6.2
Benzene	9.5
Benzo(a)pyrene	0.84
Bis(2-ethylhexyl)phthalate	37
Chrysene	2.2
Ethylbenzene	67
Naphthalene	[Reserved]
Phenanthrene	7.7
Phenol	2.7
Pyrene	2.0
Toluene	9.5
Xylenes	[Reserved]
Cyanides (Total)	1.8

K049 wastewaters	Concentration (in mg/1)
Anthracene	0.039
Benzene	.011
Benzo(a)pyrene	.047
Bis(2-ethylhexyl)phthalate	.043
Carbon disulfide	.011
Chrysene	.043
2,4-Dimethylphenol	.033
Ethylbenzene	.011
Naphthalene	.033

K049 wastewaters	Concentration (in mg/1)
Phenanthrene	.039
Phenol	.047
Pyrene	.045
Toluene	.011
Xylenes	.011
Chromium (Total)	.20
Lead	.037

K050 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Benzo(a)pyrene	0.84
Phenol	2.7
Cyanides (Total)	1.8

K050 wastewaters	Concentration (in mg/1)
Benzo(a)pyrene	0.047
Phenol	.047
Chromium (Total)	.20
Lead	.037

K051 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Anthracene	6.2
Benzene	9.5
Benzo(a)anthracene	1.4
Benzo(a)pyrene	.84
Bis(2-ethylhexyl)phthalate	37
Chrysene	2.2
Di-n-butyl phthalate	4.2
Ethylbenzene	67
Naphthalene	[Reserved]
Phenanthrene	7.7
Phenol	2.7
Pyrene	2.0
Toluene	9.5
Xylenes	[Reserved]
Cyanides (Total)	1.8

K051 wastewaters	Concentration (in mg/1)
Acenaphthene	0.050
Anthracene	.039
Benzene	.011
Benzo(a)anthracene	.043
Benzo(a)pyrene	.047
Bis(2-ethylhexyl) phthalate	.043
Chrysene	.043
Di-n-butyl phthalate	.060
Ethylbenzene	.011
Fluorene	.050
Naphthalene	.033
Phenanthrene	.039
Phenol	.047
Pyrene	.045
Toluene	.011
Xylenes	.011
Chromium (Total)	.20
Lead	.037

K052 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Benzene	9.5
Benzo(a)pyrene	0.84
o-Cresol	2.2
p-Cresol	0.90
Ethylbenzene	67
Naphthalene	[Reserved]
Phenanthrene	7.7
Phenol	2.7
Toluene	9.5
Xylenes	[Reserved]
Cyanides (Total)	1.8

K052 wastewaters	Concentration (in mg/1)
Benzene	0.011
Benzo(a)pyrene	.047
o-Cresol	.011
p-Cresol	.011
2,4-Dimethylphenol	.033
Ethylbenzene	.011
Naphthalene	.033
Phenanthrene	.039
Phenol	.047
Toluene	.011
Xylenes	.011
Chromium (Total)	.20
Lead	.037

K062 wastewaters	Concentration (in mg/1)
Chromium (Total)	0.32
Lead	.04
Nickel	.44

K071 wastewaters	Concentration (in mg/1)
Mercury	0.030

K086 nonwastewaters—Solvent Washes Subcategory (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Acetone	0.37
bis(2-ethylhexyl) phthalate	.49
n-Butyl alcohol	.37
Cyclohexanone	.49
1,2-Dichlorobenzene	.49
Ethyl acetate	.37

K086 nonwastewaters—Solvent Washes Subcategory (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Ethyl benzene	.031
Methanol	.37
Methylene chloride	.037
Methyl ethyl ketone	.37
Methyl isobutyl ketone	.37
Naphthalene	.49
Nitrobenzene	.49
Toluene	.031
1,1,1,-Trichloroethane	.044
Trichloroethylene	.031
Xylenes	.015

K086 wastewaters—Solvent Washes Subcategory	Concentration (in mg/1)
Acetone	0.015
bis(2-ethylhexyl)phthalate	.044
n-Butyl alcohol	.031
Cyclohexanone	.022
1,2-Dichlorobenzene	.044
Ethyl acetate	.031
Ethyl benzene	.015
Methanol	.031
Methylene chloride	.031
Methyl ethyl ketone	.031
Methyl isobutyl ketone	.031
Naphthalene	.044
Nitrobenzene	.044
Toluene	.029
1,1,1,-Trichloroethane	.031
Trichloroethylene	.029
Xylenes	.015
Chromium (Total)	.32
Lead	.037

K087 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Acenaphthalene	3.4
Benzene	.071
Chrysene	3.4
Fluoranthene	3.4
Indeno (1,2,3-cd) pyrene	3.4
Naphthalene	3.4
Phenanthrene	3.4
Toluene	.65
Xylenes	.070

K087 wastewaters	Concentration (in mg/1)
Acenaphthalene	0.028
Benzene	.014
Chrysene	.028
Fluoranthene	.028
Indeno (1,2,3-cd) pyrene	.028
Naphthalene	.028
Phenanthrene	.028
Toluene	.008
Xylenes	.014
Lead	.037

K095 nonwastewaters	Concentration (in mg/kg)
1,1,1,2-Tetrachloroethane	5.6
1,1,2,2-Tetrachloroethane	5.6
Tetrachloroethene	6.0
1,1,2-Trichloroethane	6.0
Trichloroethylene	5.6
Hexachloroethane	28
Pentachloroethane	5.6

K096 nonwastewaters	concentration (in mg/kg)
1,3-Dichlorobenzene	5.6
Pentachloroethane	5.6
1,1,1,2-Tetrachloroethane	5.6
1,1,2,2-Tetrachloroethane	5.6
Tetrachloroethylene	6.0
1,2,4-Trichlorobenzene	19
Trichloroethylene	5.6
1,1,2-Trichloroethane	6.0

K099 nonwastewaters	Concentration (in mg/kg)
2,4-Dichlorophenoxyacetic acid	1.0
Hexachlorodibenzo-p-dioxins	.001
Hexachlorodibenzofurans	.001
Pentachlorodibenzo-p-dioxins	.001
Pentachlorodibenzofurans	.001
Tetrachlorodibenzo-p-dioxins	.001
Tetrachlorodibenzofurans	.001

K099 wastewaters	Concentration (in mg/1)
2,4-Dichlorophenoxyacetic acid	1.0
Hexachlorodibenzo-p-dioxins	.001
Hexachlorodibenzofurans	.001
Pentachlorodibenzo-p-dioxins	.001
Pentachlorodibenzofurans	.001
Tetrachlorodibenzo-p-dioxins	.001
Tetrachlorodibenzofurans	.001

K101 nonwastewaters (Low Arsenic Subcategory—less than 1% total arsenic) (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Ortho-Nitroaniline	14

K101 wastewaters	Concentration (in mg/1)
Ortho-Nitroaniline	0.27
Arsenic	2.0
Cadmium	.24
Lead	.11
Mercury	.027

K102 nonwastewaters (Low Arsenic Subcategory—less than 1% total arsenic) (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Ortho Nitrophenol	13

K102 wastewaters	Concentration (in mg/1)
Ortho-Nitrophenol	0.028
Arsenic	2.0
Cadmium	.24
Lead	.11
Mercury	.027

K103 nonwastewaters	Concentration (in mg/kg)
Aniline	5.6
Benzene	6.0
2,4-Dinitrophenol	5.6
Nitrobenzene	5.6
Phenol	5.6

K103 wastewaters	Concentration (in mg/1)
Aniline	4.5
Benzene	.15
2,4-Dinitrophenol	.61
Nitrobenzene	.073
Phenol	1.4

K104 nonwastewaters	Concentration (in mg/kg)
Aniline	5.6
Benzene	6.0
2,4-Dinitrophenol	5.6
Nitrobenzene	5.6
Phenol	5.6
Cyanides (Total)	1.8

K104 wastewaters	Concentration (in mg/1)
Aniline	4.5
Benzene	.15
2,4-Dinitrophenol	.61
Nitrobenzene	.073
Phenol	1.4
Cyanides (Total)	2.7

K115 wastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/l)
Nickel	0.47

P013 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P013 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P021 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P021 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P029 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P029 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P030 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P030 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P039 nonwastewaters	Concentration (in mg/kg)
Disulfoton	0.1

P039 wastewaters	Concentration (in mg/l)
Disulfoton	0.025

P063 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P063 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P071 nonwastewaters	Concentration (in mg/kg)
Methyl parathion	0.1

P071 wastewaters	Concentration (in mg/l)
Methyl parathion	0.025

P074 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P074 wastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10
Nickel	0.44

P089 nonwastewaters	Concentration (in mg/kg)
Parathion	0.1

P089 wastewaters	Concentration (in mg/l)
Parathion	0.025

P094 nonwastewaters	Concentration (in mg/kg)
Phorate	0.1

P094 wastewaters	Concentration (in mg/l)
Phorate	0.025

P097 nonwastewaters	Concentration (in mg/kg)
Famphur	0.1

P097 wastewaters	Concentration (in mg/l)
Famphur	0.025

P098 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P098 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P099 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P099 wastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P104 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P104 wastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P106 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P106 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

P121 nonwastewaters	Concentration (in mg/kg)
Cyanides (Total)	110
Cyanides (Amenable)	9.1

P121 wastewaters	Concentration (in mg/l)
Cyanides (Total)	1.9
Cyanides (Amenable)	0.10

U028 nonwastewaters	Concentration (in mg/kg)
Bis-(2-ethylhexyl) phthalate	28

U028 wastewaters	Concentration (in mg/l)
Bis-(2-ethylhexyl) phthalate	0.54

U069 nonwastewaters	Concentration (in mg/kg)
Di-n-butyl phthalate	28

U069 wastewaters	Concentration (in mg/l)
Di-n-butyl phthalate	0.54

U088 nonwastewaters	Concentration (in mg/kg)
Diethyl phthalate	28

U088 wastewaters	Concentration (in mg/l)
Diethyl phthalate	0.54

U102 nonwastewaters	Concentration (in mg/kg)
Dimethyl phthalate	28

U102 wastewaters	Concentration (in mg/l)
Dimethyl phthalate	0.54

U107 nonwastewaters	Concentration (in mg/kg)
Di-n-octyl phthalate	28

U107 wastewaters	Concentration (in mg/l)
Di-n-octyl phthalate	0.54

U190 nonwastewaters	Concentration (in mg/kg)
Phthalic anhydride (measured as Phthalic acid)	28

U190 wastewaters	Concentration (in mg/l)
Phthalic anhydride (measured as Phthalic acid)	0.54

U235 nonwastewaters	Concentration (in mg/kg)
tris-(2,3-Dibromopropyl) phosphate	0.1

U235 wastewaters	Concentration (in mg/l)
tris-(2,3-Dibromopropyl) phosphate	0.025

No Land Disposal for:

K005 Nonwastewaters generated by the process described in the waste listing description, and disposed after June 8, 1989, and not generated in the course of treating wastewater forms of these wastes. (Based on No Generation)

K007 Nonwastewaters generated by the process described in the waste listing description, and disposed after June 8, 1989, and not generated in the course of treating wastewater forms of these wastes. (Based on No Generation)

K021 Nonwastewater forms of these wastes generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on No Generation)

K025 Nonwastewater forms of these wastes generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on No Generation)

K036 Nonwastewater forms of these wastes generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on No Generation)

K044 (Based on Reactivity)

K045 (Based on Reactivity)

K047 (Based on Reactivity)

K060 Nonwastewater forms of these waste generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on No Generation)

K061 Nonwastewater—High Zinc Subcategory (greater than or equal to 15% total zinc) (Based on Recycling): effective 8/8/90

K069 Non-Calcium Sulfate Subcategory—Nonwastewater forms of these waste generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on No Generation)

K100 Nonwastewater forms of these waste generated by the process described in the waste listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes (Based on Recyling)

54 FR 18837, May 2, 1989; 54 FR 26649, June 23, 1989]

(b) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

[53 FR 31218, Aug. 17, 1988, as amended at 54 FR 18837, May 2, 1989; 54 FR 26649, June 23, 1989]

EFFECTIVE DATE NOTES:

1. At 54 FR 26649, June 23, 1989, § 268.43(a) was amended by revising the subtable for F006 nonwastewater, effective July 9, 1989. For the convenience of the reader, the superseded text is set forth as follows:

* * * * *

F006 nonwastewaters (see also Table CCWE in § 268.41)	Concentration (in mg/kg)
Cyanides (Total)	Reserved

2. At 53 FR 31218, August 17, 1988, paragraph (b) was added to § 268.42, effective August 8, 1988. At 54 FR 26649, June 23, 1989, the same paragraph (b) was added, effective June 8, 1989.

§ 268.44 Variance from a treatment standard.

(a) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition the Administrator for a variance from the treatment standard. The petitioner must demonstrate that because the physical or chemical properties of the waste differs significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

(b) Each petition must be submitted in accordance with the procedures in § 260.20.

(c) Each petition must include the following statement signed by the petitioner or an authorized representative:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that these are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator will give public notice in the FEDERAL REGISTER of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the FEDERAL REGISTER.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(h) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may apply to the Assistant Administrator of the Office of Solid Waste and Emergency Response, or his delegated representative, for a site-specific variance from a treatment standard. The applicant for a site-specific variance must demonstrate that because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

(i) Each application for a site-specific variance from [illegible] treatment standard must include [illegible] information in § 260.20(b)(1)-(4);

(j) After receiving an application for a site-specific variance from a treatment standard, the Assistant Administrator, or his delegated representative, may request any additional information or samples which may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(l) During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

[51 FR 40642, Nov. 7, 1986; 52 FR 21017, June 4, 1987, as amended at 53 FR 31221, Aug. 17, 1988]

Subpart E—Prohibitions on Storage

§ 268.50 Prohibitions on storage of restricted wastes.

(a) Except as provided in this section, the storage of hazardous wastes restricted from land disposal under Subpart C of this part of RCRA section 3004 is prohibited, unless the following conditions are met:

(1) A generator stores such wastes in tanks or containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in § 262.34 of this chapter. (A generator who is in existence on the effective date of a regulation under this part and who must store hazardous wastes for longer than 90 days due to the regulations under this Part becomes an owner/operator of a storage facility and must obtain a RCRA permit. Such a facility may qualify for interim status upon compliance with the regulations governing interim status under 40 CFR 270.70).

(2) An owner/operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks or containers solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:

(i) Each container is clearly marked to identify its contents and the date each period of accumulation begins;

(ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator must comply with the operating record requirements specified in § 264.73 or § 265.73.

(3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.

(b) An owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) A owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner/operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) The prohibition in paragraph (a) of this section does not apply to waste which are the subject of an approved petition under § 268.6, a nationwide variance under Subpart C of this part, an approved case-by-case extension under § 268.5, or a valid certification under § 268.8.

(e) The prohibition in paragraph (a) of this section does not apply to hazardous wastes that meet the treatment standards specified under §§ 268.41, 268.42, and 268.43 or the treatment standards specified under the variance in § 268.44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in § 268.32 or RCRA section 3004.

(f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required by this part within one year of the date when such wastes are first placed into storage. The provisions of paragraph (c) of this section do not apply to such PCB wastes prohibited under § 268.32 of this part

[51 FR 40642, Nov. 7, 1986; 52 FR 21017, June 4, 1987, as amended at 52 FR 25791, July 8, 1987; 53 FR 31221, Aug. 17, 1988]

APPENDIX I—TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

1.0 SCOPE AND APPLICATION

1.1 The TCLP is designed to determine the mobility of both organic and inorganic contaminants present in liquid, solid, and multiphasic wastes.

1.2 If a total analysis of the waste demonstrates that individual contaminants are not present in the waste, or that they are present but at such low concentrations that the appropriate regulatory thresholds could not possibly be exceeded, the TCLP need not be run.

2.0 SUMMARY OF METHOD

(See Figure 1)

2.1 For liquid wastes (i.e., those containing insignificant solid material), the waste, after filtration through a 0.6- to 0.8-um glass fiber filter, is defined as the TCLP extract.

2.2 For wastes comprised of solids or for wastes containing significant amounts of solid material, the particle-size of the waste is reduced (if necessary), the liquid phase, if any, is separated from the solid phase and stored for later analysis. The solid phase is extracted with an amount of extraction fluid equal to 20 times the weight of the solid phase. The extraction fluid employed is a function of the alkalinity of the solid phase of the waste. A special extractor vessel is used when testing for volatiles (See Table 1). Following extraction, the liquid extract is separated from the solid phase by 0.6- to 0.8-um glass fiber filter filtration.

2.3 If compatible (i.e., multiple phases will not form on combination), the initial liquid phase of the waste is added to the liquid extract, and these liquids are analyzed together. If incompatible, the liquids are analyzed separately and the results are mathematically combined to yield a volume-weighted average concentration.

3.0 INTERFERENCES

3.1. Potential interferences that may be encountered during analysis are discussed in the individual analytical methods.

4.0 APPARATUS AND MATERIALS

4.1 *Agitation apparatus:* An acceptable agitation apparatus is one which is capable of rotating the extraction vessel in an end-over-end fashion (See Figure 2) at 30 ± 2 rpm. Suitable devices known to EPA are identified in Table 2.

4.2 *Extraction Vessel:*

4.2.1 Zero-Headspace Extraction Vessel (ZHE). This device is for use *only* when the waste is being tested for the mobility of volatile constituents (see Table 1). The ZHE is an extraction vessel that allows for liquid/solid separation within the device, and which effectively precludes headspace (as depicted in Figure 3). This type of vessel allows for initial liquid/solid separation, extraction, and final extract filtration without having to open the vessel (see Step 4.3.1). These vessels shall have an internal volume of 500 to 600 mL and be equipped to accommodate a 90-mm filter. Suitable ZHE devices known to EPA are identified in Table 3. These devices contain viton O-rings which should be replaced frequently.

For the ZHE to be acceptable for use, the piston within the ZHE should be able to be moved with approximately 15 psi or less. If it takes more pressure to move the piston, the O-rings in the device should be replaced. If this does not solve the problem, the ZHE is unacceptable for TCLP analyses and the manufacturer should be contacted.

The ZHE should be checked after every extraction. If the device contains a built-in pressure gauge, pressurize the device to 50 psi, allow it to stand unattended for 1 hour, and recheck the pressure. If the device does not have a built-in pressure gauge, pressurize the device to 50 psi, submerge it in water, and check for the presence of air bubbles escaping from any of the fittings. If pressure is lost, check all fittings and inspect and replace O-rings, if necessary. Retest the device. If leakage problems cannot be solved, the manufacturer should be contacted.

4.2.2 When the waste is being evaluated for other than volatile contaminants, an extraction vessel that does not preclude headspace (e.g., a 2-liter bottle) is used. Suitable extraction vessels include bottles made from various materials, depending on the contaminants to be analyzed and the nature of the waste (see Step 4.3.3). It is recommended that borosilicate glass bottles be used over other types of glass, especially when inorganics are of concern. Plastic bottles may be used only if inorganics are to be investigated. Bottles are available from a number of laboratory suppliers. When this type of extraction vessel is used, the filtration device discussed in Step 4.3.2 is used for initial liquid/solid separation and final extract filtration.

4.2.3 Some ZHEs use gas pressure to actuate the ZHE piston, while others use mechanical pressure (see Table 3). Whereas the volatiles procedure (see Section 9.0) refers to pounds-per-square inch (psi), for the mechanically actuated piston, the pressure applied is measured in torque-inch-pounds. Refer to the manufacturer's instructions as to the proper conversion.

4.3 *Filtration Devices:* It is recommended that all filtrations be performed in a hood.

4.3.1 Zero-Headspace Extractor Vessel (see Figure 3): When the waste is being evaluated for volatiles, the zero-headspace extraction vessel is used for filtration. The device shall be capable of supporting and keeping in place the glass fiber filter, and be able to withstand the pressure needed to accomplish separation (50 psi).

NOTE: When it is suspected that the glass fiber filter has been ruptured, an in-line glass fiber filter may be used to filter the material within the ZHE.

4.3.2 Filter Holder: When the waste is being evaluated for other than volatile compounds, a filter holder capable of supporting a glass fiber filter and able to withstand the pressure needed to accomplish separation is used. Suitable filter holders range from simple vacuum units to relatively complex systems capable of exerting pressures of up to 50 psi or more. The type of filter holder used depends on the properties of the material to be filtered (see Step 4.3.3). These devices shall have a minimum internal volume of 300 mL and be equipped to accommodate a minimum filter size of 47 mm (Filter holders having an internal capacity of 1.5 L or greater and equipped to accommodate a 142 mm diameter filter are recommended). Vaccum filtration is only recommended for wastes with low solids content (<10%) and for highly granular (liquid-containing) wastes. All other types of wastes should be filtered using positive pressure filtration. Filter holders known to EPA to be suitable for use are shown in Table 4.

4.3.3 Materials of Construction: Extraction vessels and filtration devices shall be made of inert materials which will not leach or absorb waste components. Glass, polytetrafluoroethylene (PTFE), or type 316 stainless steel equipment may be used when evaluating the mobility of both organic and inorganic components. Devices made of high-density polyethylene (HDPE), polypropylene, or polyvinyl chloride may be used only when evaluating the mobility of metals. Borosilicate glass bottles are recommended for use over other types of glass bottles, especially when inorganics are constituents of concern.

4.4 *Filters:* Filters shall be made of borosilicate glass fiber, shall contain no binder materials, and shall have an effective pore size of 0.6- to 0.8-um, or equivalent. Filters known to EPA to meet these specifications are identified in Table 5. Pre-filters must not be used. When evaluating the mobility of metals, filters shall be acid-washed prior to use by rinsing with 1.0 N nitric acid followed by three consecutive rinses with deionized distilled water (a minimum of 1-L per rinse is recommended). Glass fiber filters are fragile and should be handled with care.

4.5 *pH meters:* Any of the commonly available pH meters are acceptable.

4.6 *ZHE extract collection devices:* TEDLAR® bags or glass, stainless steel or PTFE gas tight syringes are used to collect the initial liquid phase and the final extract of the waste when using the ZHE device. The devices listed are recommended for use under the following conditions.

4.6.1 If a waste contains an aqueous liquid phase or if a waste does not contain a significant amount of non-aqueous liquid (i.e., <1% of total waste), the TEDLAR® bag should be used to collect and combine the initial liquid and solid extract. The syringe is not recommended in these cases.

4.6.2 If a waste contains a significant amount of non-aqueous initial liquid phase (i.e., >1% of total waste), the syringe or the TEDLAR® bag may be used for both the initial solid/liquid separation and the final extract filtration. However, analysts should use one or the other, not both.

4.6.3 If the waste contains no initial liquid phase (is 100% solid) or has no significant solid phase (is 100% liquid), either the TEDLAR® bag or the syringe may be used. If the syringe is used, discard the first 5 mL of liquid expressed from the device. The remaining aliquots are used for analysis.

4.7 *ZHE extraction fluid transfer devices:* Any device capable of transferring the extraction fluid into the ZHE without changing the nature of the extraction fluid is acceptable (e.g., a constant displacement pump, a gas tight syringe, pressure filtration unit (See Step 4.3.2), or another ZHE device).

4.8 *Laboratory balance:* Any laboratory balance accurate to within ±0.01 grams may be used (all weight measurements are to be within ±0.1 grams).

5.0 REAGENTS

5.1 *Reagent water:* Reagent water is defined as water in which an interferent is not observed at or above the method detection limit of the analyte(s) of interest. For non-volatile extractions, ASTM Type II water, or equivalent meets the definition of reagent water. For volatile extractions, it is recommended that reagent water be generated by any of the following methods. Reagent water should be monitored periodically for impurities.

5.1.1 Reagent water for volatile extractions may be generated by passing tap water through a carbon filter bed containing about 500 grams of activated carbon (Calgon Corp., Filtrasorb-300 or equivalent).

5.1.2 A water purification system (Millipore Super-Q or equivalent) may also be used to generate reagent water for volatile extractions.

5.1.3 Reagent water for volatile extractions may also be prepared by boiling water for 15 minutes. Subsequently, while maintaining the water temperature at 90± 5°C, bubble a contaminant-free inert gas (e.g., nitrogen) through the water for 1 hour. While still hot, transfer the water to a narrow-mouth screw-cap bottle under zero-headspace and seal with a Teflon-lined septum and cap.

5.2 1.0 N Hydrochloric acid (HCl) made from ACS reagent grade.

5.3 1.0 N Nitric acid (HNO_3) made from ACS reagent grade.

5.4 1.0 N Sodium hydroxide (NaOH) made from ACS reagent grade.

5.5 Glacial acetic acid (HOAc) ACS reagent grade.

5.6 *Extraction fluid:*

5.6.1 Extraction fluid #1: This fluid is made by adding 5.7 mL glacial HOAc to 500 mL of the appropriate water (see Step 5.1), adding 64.3 mL of 1.0 N NaOH, and diluting to a volume of 1 liter. When correctly prepared, the pH of this fluid will be 4.93 ± 0.05.

5.6.2 Extraction fluid #2: This fluid is made by diluting 5.7 mL glacial HOAc with ASTM Type II water (see Step 5.1) to a volume of 1 liter. When correctly prepared, the pH of this fluid will be 2.88 ± 0.05.

NOTE: It is suggested that these extraction fluids be monitored frequently for impurities. The pH should be checked prior to use to ensure that these fluids are made up accurately.

5.7 Analytical standards shall be prepared according to the appropriate analytical method.

6.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

6.1 All samples shall be collected using an appropriate sampling plan.

6.2 At least two separate representative samples of a waste should be collected. If volatile organics are of concern, a third sample should be collected. The first sample is used in several preliminary TCLP evaluations (e.g., to determine the percent solids of the waste; to determine if the waste contains insignificant solids (i.e., the waste is its own extract after filtration); to determine if the solid portion of the waste requires particle-size reduction; and to determine which of the two extraction fluids are to be used for the non-volatile TCLP extraction of the waste). These preliminary evaluations are identified in Section 7.0. The second and, if required, third samples are extracted using the TCLP non-volatile procedure (Section

8.0) and volatile procedure (Section 9.0), respectively.

6.3 Preservatives shall not be added to samples.

6.4 Samples can be refrigerated unless refrigeration results in irreversible physical change to the waste (e.g., precipitation).

6.5 When the waste is to be evaluated for volatile contaminants, care should be taken to minimize the loss of volatiles. Samples shall be taken and stored in a manner to prevent the loss of volatile contaminants. If possible, it is recommended that any necessary particle-size reduction should be conducted as the sample is being taken (See Step 8.5).

6.6 TCLP extracts should be prepared for analysis and analyzed as soon as possible following extraction. If they need to be stored, even for a short period of time, storage shall be a 4° C. and samples for volatiles analysis shall not be allowed to come into contact with the atmosphere (i.e., no headspace). See Section 10.0 (QA requirements) for acceptable sample and extract holding times.

7.0 PRELIMINARY TCLP EVALUATIONS

The preliminary TCLP evaluations are performed on a minimum 100 gram representative sample of waste that will not actually undergo TCLP extraction (designated as the first sample in Step 6.2). These evaluations include preliminary determination of the percent solids of the waste; determination of whether the waste contains insignificant solids, and is therefore, its own extract after filtration; determination of whether the solid portion of the waste requires particle-size reduction; and determination of which of the two extraction fluids are to be used for the non-volatile TCLP extraction of the waste.

7.1 *Preliminary determination of percent solids:* Percent solids is defined as that fraction of a waste sample (as a percentage of the total sample) from which no liquid may be forced out by an applied pressure, as described below.

7.1.1 If the waste will obviously yield no free liquid when subjected to pressure filtration (i.e., is 100% solids) proceed to Step 7.4.

7.1.2 If the sample is liquid or multiphasic, liquid/solid separation to make a preliminary determination of percent solids is required. This involves the filtration device described in Step 4.3.2 and is outlined in Steps 7.1.3 through 7.1.9.

7.1.3 Pre-weigh the filter and the container that will receive the filtrate.

7.1.4 Assemble the filter holder and filter following the manufacturer's instructions. Place the filter on the support screen and secure.

7.1.5 Weigh out a representative subsample of the waste (100 gram minimum) and record the weight.

7.1.6 Allow slurries to stand to permit the solid phase to settle. Wastes that settle slowly may be centrifuged prior to filtration. Centrifugation is to be used only as an aid to filtration. If used, the liquid should be decanted and filtered followed by filtration of the solid portion of the waste through the same filtration system.

7.1.7 Quantitatively transfer the waste sample to the filter holder (liquid and solid phases). If filtration of the waste at 4° C reduces the amount of expressed liquid over what would be expressed at room temperature then allow the sample to warm up to room temperature in the device before filtering.

NOTE: If waste material (>1% of original sample weight) has obviously adhered to the container used to transfer the sample to the filtration apparatus, determine the weight of this residue and subtract it from the sample weight determined in Step 7.1.5 to determine the weight of the waste sample that will be filtered.

Gradually apply vacuum or gentle pressure of 1-10 psi, until air or pressurizing gas moves through the filter. If this point is not reached under 10 psi, and if no additional liquid has passed through the filter in any 2-minute interval, slowly increase the pressure in 10-psi increments to a maximum of 50 psi. After each incremental increase of 10-psi, if the pressurizing gas has not moved through the filter, and if no additional liquid has passed through the filter in any 2-minute interval, proceed to the next 10-psi increment. When the pressurizing gas begins to move through the filter, or when liquid flow has ceased at 50 psi (i.e., filtration does not result in any additional filtrate within any 2-minute period), filtration is stopped.

NOTE: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.

7.1.8 The material in the filter holder is defined as the solid phase of the waste, and the filtrate is defined as the liquid phase.

NOTE: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. But even after applying vacuum or pressure filtration, as outlined in Step 7.1.7, this material may not filter. If this is the case, the material within the filtration device is defined as a solid. The original filter is *not* to be replaced with a fresh filter under any circumstances. Only one filter is used.

7.1.9 Determine the weight of the liquid phase by subtracting the weight of the filtrate container (See Step 7.1.3) from the total weight of the filtrate-filled container.

The weight of the solid phase of the waste sample is determined by subtracting the weight of the liquid phase from the weight of the total waste sample, as determined in Step 7.1.5 or 7.1.7. Record the weight of the liquid and solid phases. Calculate the percent solids as follows:

$$\text{Percent solids} = \frac{\text{Weight of solid (Step 7.1.9)}}{\text{Total weight of waste (Step 7.1.5 or 7.1.7)}} \times 100$$

7.2 *Determination of whether waste is liquid or has insignificant amounts of solid material:* If the sample obviously has a significant amount of solid material, the solid phase must be subjected to extraction; proceed to Step 7.3 to determine if the waste requires particle-size reduction (and to reduce particle-size, if necessary). Determine whether the waste is liquid or has insignificant amounts of solid material (which need not undergo extraction) as follows:

7.2.1 Remove the solid phase and filter from the filtration apparatus.

7.2.2 Dry the filter and solid phase at 100±20° C until two successive weighings yield the same value within ±1%. Record final weight.

NOTE: Caution should be taken to insure that the subject solid will not flash upon heating. It is recommended that the drying oven be vented to a hood or appropriate device.

7.2.3 Calculate the percent dry solids as follows:

$$\text{Percent dry solids} = \frac{\text{Weight of dry waste and filter} - \text{tared weight of filter}}{\text{Initial weight of waste (Step 7.1.5 or 7.1.1)}} \times 100$$

7.2.4 If the percent dry solids is less than 0.5%, consult Step 6.2 and proceed to Section 8.0 if non-volatiles in the waste are of concern, and to Section 9.0 if volatiles are of interest. In this case, the waste, after filtration is defined as the TCLP extract. If the percent dry solids is greater than or equal to 0.5%, and if the non-volatile TCLP is to be performed, return to the beginning of this Section (7.0) with a new representative waste sample, so that it can be determined if particle-size reduction is necessary (Step 7.3), and so that the appropriate extraction fluid may be determined (Step 7.4) on a fresh portion of the solid phase of the waste. If only the volatile TCLP is to be performed, see the Note in Step 7.4.

7.3 *Determination of whether the wastes requires particle-size reduction (particle-size is reduced during this Step):* Using the solid portion of the waste, evaluate the solid for particle-size. If the solid has a surface area per gram of material equal to or greater than 3.1 cm², or is smaller than 1 cm in its narrowest dimension (e.g., is capable of passing through a 9.5-mm (0.375-inch) standard sieve), particle-size reduction is not required (proceed to Step 7.4). If the surface area is smaller or the particle-size larger than described above, the solid portion of the waste is prepared for extraction by crushing, cutting, or grinding the waste to a surface area or particle-size as described above.

NOTE: Surface area requirements are meant for filamentous (e.g., paper, cloth) and similar waste materials. Actual measurement of surface area is not required; nor is it recommended.

7.4 *Determination of appropriate extraction fluid:* If the solid content is greater than or equal to 0.5% of the waste and if TCLP extraction for non-volatile constituents will take place (Section 8.0), determination of the appropriate fluid (Step 5.6) to use for the non-volatiles extraction is performed as follows.

NOTE: TCLP extraction for volatile constituents entails using only extraction fluid #1 (Step 5.6.1). Therefore, if TCLP extraction for non-volatiles extraction is not required, proceed to section 9.0.

7.4.1 Weigh out a small subsample of the solid phase of the waste, reduce the solid (if necessary) to a particle-size of approximately 1mm in diameter or less, and transfer 5.0 grams of the solid phase of the waste to a 500-mL beaker or Erlenmeyer flask.

7.4.2 Add 96.5 mL of reagent water (ASTM Type II) to the beaker, cover with a watchglass, and stir vigorously for 5 minutes using a magnetic stirrer. Measure and record the pH. If the pH is <5.0, extraction fluid #1 is used. Proceed to Section 8.0.

7.4.3 If the pH from Step 7.4.2 is >5.0, add 3.5 mL 1.0 N HCl, slurry briefly, cover with a watchglass, heat to 50 °C, and hold at 50 °C for 10 minutes.

7.4.4 Let the solution cool to room temperature and record the pH. If the pH is <5.0, use extraction fluid #1. If the pH is >5.0, use extraction fluid #2. Proceed to Section 8.0.

7.5 The sample of waste used for performance of this Section shall *not* be used any further. Other samples of the waste (see Step 6.2) should be employed for the Section 8.0 and 9.0 extractions.

8.0 PROCEDURE WHEN VOLATILES ARE NOT INVOLVED

Although a minimum sample size of 100 grams (solid and liquid phases) is required, a larger sample size may be more appropriate, depending on the solids content of the waste sample (percent solids, see Step 7.1), whether the initial liquid phase of the waste will be miscible with the aqueous extract of the solid, and whether inorganics, semivolatile organics, pesticides, and herbicides are all analytes of concern. Enough solids should be generated for extraction such that the volume of TCLP extract will be sufficient to support all of the analyses required. If the amount of extract generated by the performance of a single TCLP extraction will not be sufficient to perform all of the analyses to be conducted, it is recommended that more than one extraction be performed and that the extracts from each extraction be combined and then aliquoted for analysis.

8.1 If the waste will obviously yield no liquid when subjected to pressure filtration (i.e., is 100% solid, see Step 7.1), weigh out a representative subsample of the waste (100 gram minimum) and proceed to Step 8.9.

8.2 If the sample is liquid or multiphasic, liquid/solid separation is required. This involves the filtration device described in Step 4.3.2 and is outlined in Steps 8.3 to 8.8.

8.3 Pre-weigh the container that will receive the filtrate.

8.4 Assemble the filter holder and filter following the manufacturer's instructions. Place the filter on the support screen and secure. Acid wash the filter if evaluating the mobility of metals (See Step 4.4).

NOTE: Acid washed filters may be used for all non-volatile extractions even when metals are not of concern.

8.5 Weigh out a representative subsample of the waste (100 gram minimum) and record the weight. If the waste was shown to contain <0.5% dry solids (Step 7.2), the waste, after filtration is defined as the TCLP extract. Therefore, enough of the sample should be filtered so that the amount of filtered liquid will support all of the analyses required of the TCLP extract. For wastes containing >0.5% dry solids (Steps 7.1 or 7.2), use the percent solids information obtained in Step 7.1 to determine the optimum sample size (100 gram minimum) for filtration. Enough solids should be generated after filtration to support the analyses to be performed on the TCLP extract.

8.6 Allow slurries to stand to permit the solid phase to settle. Wastes that settle slowly may be centrifuged prior to filtration. Centrifugation is to be used only as an aid to filtration. If used, the liquid should be decanted and filtered followed by filtration of the solid portion of the waste through the same filtration system.

8.7 Quantitatively transfer the waste sample (liquid and solid phases) to the filter holder (see Step 4.3.2). If filtration of the waste at 4° C reduces the amount of expressed liquid over what would be expressed at room temperature, then allow the sample to warm up to room temperature in the device before filtering.

NOTE: If waste material (>1% of the original sample weight) has obviously adhered to the container used to transfer the sample to the filtration apparatus, determine the weight of this residue and subtract it from the sample weight determined in Step 8.5, to determine the weight of the waste sample that will be filtered.

Gradually apply vacuum or gentle pressure of 1-10 psi, until air or pressurizing gas moves through the filter. If this point is not reached under 10 psi, and if no additional liquid has passed through the filter in any 2-minute interval, slowly increase the pressure in 10-psi increments to maximum of 50 psi. After each incremental increase of 10 psi, if the pressurizing gas has not moved through the filter, and if no additional liquid has passed through the filter in any 2-minute interval, proceed to the next 10-psi increment. When the pressurizing gas begins to move through the filter, or when the liquid flow has ceased at 50 psi (i.e., filtration does not result in any additional filtrate within a 2-minute period), filtration is stopped.

NOTE: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.

8.8 The material in the filter holder is defined as the solid phase of the waste, and the filtrate is defined as the liquid phase. Weigh the filtrate. The liquid phase may now be either analyzed (see Step 8.13) or stored at 4 °C until time of analysis.

NOTE: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. But even after applying vacuum or pressure filtration, as outlined in Step 8.7, this material may not filter. If this is the case, the material within the filtration device is defined as a solid and is carried through the extraction as a solid. The original filter is *not* to be replaced with a fresh filter under any circumstances. Only one the filter is used.

8.9 If the waste contains <0.5% dry solids (see Step 7.2), proceed to Step 8.13. If the waste contains >0.5% dry solids (see Step 7.1 or 7.2), and if particle-size reduction of the solid was needed in Step 7.3, proceed to Step 8.10. If particle-size reduction was not required in Step 7.3, quantitatively transfer the solid material into the extractor vessel, including the filter used to separate the initial liquid from the solid phase. Proceed to Step 8.11.

8.10 The solid portion of the waste is prepared for extraction by crushing, cutting, or grinding the waste to a surface area of particle-size as described in Step 7.3. When the surface area of particle-size has been appropriately altered, quantitatively transfer the solid material into the extractor vessel, including the filter used to separate the initial liquid from the solid phase.

NOTE: Sieving of the waste through a sieve that is not Teflon coated should not be done due to avoid possible contamination of the sample. Surface area requirements are meant for filamentous (e.g., paper, cloth) and similar waste materials. Actual measurement of surface area is not recommended.

8.11 Determine the amount of extraction fluid to add to the extractor vessel as follows:

$$\text{Weight of extraction fluid} = \frac{20 \times \%\ \text{solids (Step 7.1)} \times \text{weight of waste filtered (Step 8.5 or 8.7)}}{100}$$

Slowly add this amount of appropriate extraction fluid (see Step 7.4) to the extractor vessel. Close the extractor bottle tightly (it is recommended that Teflon tape be used to ensure a tight seal), secure in rotary extractor device, and rotate at 30±2 rpm for 18±2 hours. Ambient temperature (i.e., temperature of room in which extraction is to take place) shall be maintained at 22±3 °C during the extraction period.

NOTE: As agitation continues, pressure may build up within the extractor bottle for some types of wastes (e.g., limed or calcium carbonate containing waste may evolve gases such as carbon dioxide). To relieve excess pressure, the extractor bottle may be periodically opened (e.g., after 15 minutes, 30 minutes, and 1 hour) and vented into a hood.

8.12 Following the 18±2 hour extraction, the material in the extractor vessel is separated into its component liquid and solid phases by filtering through a new glass fiber filter, as outlined in Step 8.7. For final filtration of the TCLP extract, the glass fiber filter may be changed, if necessary, to facilitate filtration. Filter(s) shall be acid-washed (see Step 4.4) if evaluating the mobility of metals.

8.13 The TCLP extract is now prepared as follows:

8.13.1 If the waste contained no initial liquid phase, the filtered liquid material obtained from Step 8.12 is defined as the TCLP extract. Proceed to Step 8.14.

8.13.2 If compatible (e.g., multiple phases will not result on combination), the filtered liquid resulting from Step 8.12 is combined with the initial liquid phase of the waste as obtained in Step 8.7. This combined liquid is defined as the TCLP extract. Proceed to Step 8.14.

8.13.3 If the initial liquid phase of the waste, as obtained from Step 8.7, is not or may not be compatible with the filtered liquid resulting from Step 8.12, these liquids are not combined. These liquids, collectively defined as the TCLP extract, are analyzed separately, and the results are combined mathematically. Proceed to Step 8.14.

8.14 Following collection of the TCLP extract, it is recommended that the pH of the extract be recorded. The extract should be immediately aliquoted for analysis and properly preserved (metals aliquots must be acidified with nitric acid to pH <2; all other aliquots must be stored under refrigeration (4 °C) until analyzed). The TCLP extract shall be prepared and analyzed according to appropriate analytical methods. TCLP extracts to be analyzed for metals, other than mercury, shall be acid digested. If the individual phases are to be analyzed separately, determine the volume of the individual phases (to ±0.5%), conduct the appropriate analyses, and combine the results mathematically by using a simple volume-weighted average:

$$\text{Final Analyte Concentration} = \frac{(V_1)(C_1)+(V_2)(C_2)}{V_1+V_2}$$

where:

V_1 = The volume of the first phase (L).

C_1 = The concentration of the contaminant of concern in the first phase (mg/L).

V_2 = The volume of the second phase (L).

C_2 = The concentration of the contaminant of concern in the second phase (mg/L).

8.15 The contaminant concentrations in the TCLP extract are compared with the thresholds identified in the appropriate regulations. Refer to Section 10.0 for quality assurance requirements.

9.0 PROCEDURE WHEN VOLATILES ARE INVOLVED

The ZHE device is used to obtain TCLP extracts for volatile analysis only. Extract resulting from the use of the ZHE shall not be used to evaluate the mobility of non-volatile analytes (e.g., metals, pesticides, etc.).

The ZHE device has approximately a 500-mL internal capacity. Although a minimum sample size of 100 grams was required in the Section 8.0 procedure, the ZHE can only accommodate a *maximum* of 25 grams of solid (defined as that fraction of a sample from which no liquid (additional) may be forced out by an applied pressure of 50 psi), due to the need to add an amount of extraction fluid equal to 20 times the weight of the solid phase.

The ZHE is charged with sample only once and the device is not opened until the final extract (of the solid) has been collected. Repeated filling of the ZHE of obtain 25 grams of solid is not permitted. The initial filtrate should be weighed and then stored at 4 °C until either analyzed or recombined with the final extract of the solid.

Although the following procedure allows for particle-size reduction during the conduct of the procedure, this could result in the loss of volatile compounds. If possible (e.g., particle-size may be reduced easily by crumbling), particle-size reduction (See Step 9.2) should be conducted on the sample as it is being taken. If necessary, particle-size reduction may be conducted during the procedure.

In carrying out the following steps, do not allow the waste, the initial liquid phase, or the extract to be exposed to the atmosphere for any more time than is absolutely necessary. Any manipulation of these materials should be done when cold (4° C) to minimize loss of volatiles.

9.1 Pre-weigh the (evacuated) container which will receive the filtrate (See Step 4.6), and set aside. If using a TEDLAR® bag, all liquid must be expressed from the device, whether it be for the initial or final liquid/solid separation, and an aliquot taken from the liquid in the bag, for analysis. The containers listed in Step 4.6 are recommended for use under the following conditions.

9.1.1 If a waste contains an aqueous liquid phase or if the waste does not contain a significant amount of non-aqueous liquid (i.e. <1% of total waste), the TEDLAR® bag should be used to collect and combine the initial liquid and solid extract. The syringe is not recommended in these cases.

9.1.2 If a waste contains a significant amount of non-aqueous initial liquid phase (i.e., >1% of total waste), the syringe or the TEDLAR® bag may be used for both the initial solid/liquid separation and the final extract filtration. However, analysts should use one or the other, not both.

9.1.3 If the waste contains no initial liquid phase (is 100% solid) or has no significant solid phase (is 100% liquid), either the TEDLAR® bag or the syringe may be used. If the syringe is used, discard the first 5 mL liquid expressed from the device. The remaining aliquots are used for analysis.

9.2 Place the ZHE piston within the body of the ZHE (it may be helpful first to moisten the piston O-rings slightly with extraction fluid). Adjust the piston within the ZHE body to a height that will minimize the distance the piston will have to move once the ZHE is charged with sample (based upon sample size requirements determined from Section 9.0, Step 7.1 and/or 7.2). Secure the gas inlet/outlet flange (bottom flange) onto the ZHE body in accordance with the manufacturer's instructions. Secure the glass fiber filter between the support screens and set aside. Set liquid inlet/outlet flange (top flange) aside.

9.3 If the waste is 100% solid (see Step 7.1), weigh out a representative subsample (25 gram maximum) of the waste, record weight, and proceed to Step 9.5.

9.4 If the waste was shown to contain <0.5% dry solids (Step 7.2), the waste, after filtration is defined as the TCLP extract. Enough of the sample should be filtered so that the amount of filtered liquid will support all of the volatile analyses required. For wastes containing >0.5% dry solids (Steps 7.1 and/or 7.2), use the percent solids information obtained in Step 7.1 to determine the optimum sample size to charge into the ZHE. The appropriate sample size recommended is as follows:

9.4.1 For wastes containing >5% solids (see Step 7.1), weigh out a representative 500 gram sample or waste and record the weight.

9.4.2 For wastes containing >5% solids (see Step 7.1), the amount of waste to charge into the ZHE is determined as follows:

$$\text{Weight of waste to charge ZHE} = \frac{25}{\text{\% solids (Step 7.1)}} \times 100$$

Weigh out a representative subsample of the waste of the appropriate size and record the weight.

9.5 If particle-size reduction of the solid portion of the waste was required in Step 7.3, proceed to Step 9.6. If particle-size reduction was not required in Step 7.3, proceed to Step 9.7.

9.6 The waste is prepared for extraction by crushing, cutting, or grinding the solid portion of the waste to a surface area or particle-size as described in Step 7.3. Wastes and appropriate reduction equipment should be refrigerated, if possible, to 4 °C prior to particle-size reduction. The means used to effect particle-size reduction must not generate heat in and of itself. If reduction of the solid phase of the waste is necessary, exposure of the waste to the atmosphere should be avoided to the extent possible.

Note: Sieving of the waste is not recommended due to the possibility that volatiles may be lost. The use of an appropriately graduated ruler is recommended as an acceptable alternative. Surface area requirements are meant for filamentous (e.g., paper, cloth) and similar waste materials. Actual measurement of surface area is not recommended.

When the surface area or particle-size has been appropriately altered, proceed to Step 9.7.

9.7 Waste slurries need not be allowed to stand to permit the solid phase to settle. Wastes that settle slowly shall not be centrifuged prior to filtration.

9.8 Quantitatively transfer the entire sample (liquid and solid phases) quickly to the ZHE. Secure the filter and support screens into the top flange of the device and secure the top flange to the ZHE body in accordance with the manufacturer's instructions. Tighten all ZHE fittings and place the device in the vertical position (gas inlet/outlet flange on the bottom). *Do not* attach the extraction collection device to the top plate.

Note: If waste material (>1% of original sample weight) has obviously adhered to the container used to transfer the sample to the ZHE, determine the weight of this residue and subtract it from the sample weight determined in Step 9.4, to determine the weight of the waste sample that will be filtered.

Attach a gas line to the gas inlet/outlet valve (bottom flange) and, with the liquid inlet/outlet valve (top flange) open, begin applying gentle pressure of 1-10 psi (or more if necessary) to force all headspace (into a hood) slowly out of the ZHE device. At the first appearance of liquid from the liquid inlet/outlet valve, quickly close the valve and discontinue pressure. If filtration of the waste at 4°C reduces the amount of expressed liquid over what would be expressed at room temperature, then allow the sample to warm up to room temperature in the device before filtering. If the waste is 100% solid (see Step 7.1), slowly increase the pressure to a maximum of 50 psi to force most of the headspace out of the device and proceed to Step 9.12.

9.9 Attach the evacuated pre-weighed filtrate collection container to the liquid inlet/outlet valve and open the valve. Begin applying gentle pressure of 1-10 psi to force the liquid phase into the filtrate collection container. If no additional liquid has passed through the filter in any 2-minute interval, slowly increase the pressure in 10-psi increments to a maximum of 50 psi. After each incremental increase of 10 psi, if no additional liquid has passed through the filter in any 2-minute interval, proceed to the next 10-psi increment. When liquid flow has ceased such that continued pressure filtration at 50 psi does not result in any additional filtrate within any 2-minute period, filtration is stopped. Close the liquid inlet/outlet valve, discontinue pressure to the piston, and disconnect the filtrate collection container.

Note: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.

9.10 The material in the ZHE is defined as the solid phase of the waste and the filtrate is defined as the liquid phase.

Note: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. But even after applying pressure filtration, this material will not filter. If this is the case, the material within the filtration device is defined as a solid and is carried through the TCLP extraction as a solid.

If the original waste contained <0.5% dry solids (see Step 7.2), this filtrate is defined as the TCLP extract and is analyzed directly. Proceed to Step 9.15.

9.11 The liquid phase may now be either analyzed immediately (see Steps 9.13 through 9.15) or stored at 4 °C under minimal headspace conditions until time of analysis. The weight of extraction fluid #1 to add to the ZHE is determined as follows:

$$\text{Weight of extraction fluid} = \frac{20 \text{ x } \% \text{ solids (Step 7.1) x weight of waste filtered (Step 9.4 or 9.8)}}{100}$$

9.12 The following steps detail how to add the appropriate amount of extraction fluid to the solid material within the ZHE and agitation of the ZHE vessel. Extraction fluid #1 is used in all cases (see Step 5.6).

9.12.1 With the ZHE in the vertical position, attach a line from the extraction fluid reservior to the liquid inlet/outlet valve. The line used shall contain fresh extraction fluid and should be preflushed with fluid to eliminate any air pockets in the line. Release gas pressure on the ZHE piston (from the gas inlet/outlet valve), open the liquid inlet/outlet valve, and begin transferring extraction fluid (by pumping or similar means) into the ZHE. Continue pumping extraction fluid into the ZHE until the appropriate amount of fluid has been introduced into the device.

9.12.2 After the extraction fluid has been added, immediately close the liquid inlet/outlet valve and disconnect the extraction fluid line. Check the ZHE to ensure that all valves are in their closed positions. Physically rotate the device in an end-over-end fashion 2 or 3 times. Reposition the ZHE in the vertical position with the liquid inlet/outlet valve on top. Put 5-10 psi behind the piston (if necessary) and slowly open the liquid inlet/outlet valve to bleed out any headspace (into a hood) that may have been introduced due to the addition of extraction fluid. This bleeding shall be done quickly and shall be stopped at the first appearance of liquid from the valve. Re-pressurize the ZHE with 5-10 psi and check all ZHE fittings to ensure that they are closed.

9.12.3 Place the ZHE in the rotary extractor apparatus (if it is not already there) and rotate the ZHE at 30±2 rpm for 18±2 hours. Ambient temperature (i.e., temperature of room in which extraction is to occur) shall be maintained at 22±3 °C during agitation.

9.13 Following the 18±2 hour agitation period, check the pressure behind the ZHE piston by quickly opening and closing the gas inlet/outlet valve and noting the escape of gas. If the pressure has not been maintained (i.e., no gas release observed), the device is leaking. Check the ZHE for leaking as specified in Step 4.2.1, and redo the extraction with a new sample of waste. If the pressure within the device has been maintained, the material in the extractor vessel is once again separated into its component liquid and solid phases. If the waste contained an initial liquid phase, the liquid may be filtered directly into the same filtrate collection container (i.e., TEDLAR® bag) holding the initial liquid phase of the waste, unless doing so would create multiple phases, or unless there is not enough volume left within the filtrate collection container. A separate filtrate collection container must be used in these cases. Filter through the glass fiber filter, using the ZHE device as discussed in Step 9.9. All extract shall be filtered and collected in the TEDLAR® bag is used, if the extract is multiphasic, or if the waste contained an initial liquid phase (see Steps 4.6 and 9.1).

NOTE: An in-line glass fiber filter may be used to filter the material within the ZHE when it is suspected that the glass fiber filter has been ruptured.

9.14 If the original waste contained no initial liquid phase, the filtered liquid material obtained from Step 9.13 is defined as the TCLP extract. If the waste contained in initial liquid phase, the filtered liquid material obtained from Step 9.13 and the initial liquid phase (Step 9.9) are collectively defined as the TCLP extract.

9.15 Following collection of the TCLP extract, the extract should be immediately aliquoted for analysis and stored with minimal headspace at 4 °C until analyzed. The TCLP extract will be prepared and analyzed according to the appropriate analytical methods. If the individual phases are to be analyzed separately (i.e., are not miscible), determine the volume of the individual phases (to ±0.5%), conduct the appropriate analyses, and combine the results mathematically by using a simple volume-weighted average:

$$\text{Final Analyte Concentration} = \frac{(V_1)(C_1)+(V_2)(C_2)}{V_1+V_2}$$

where:

V_1=The volume of the first phases (L).

C_1=The concentration of the contaminant of concern in the first phase (mg/L).

V_2=The volume of the second phase (L).

C_2=The concentration of the contaminant of concern in the second phase (mg/L).

9.16 The contaminant concentrations in the TCLP extract are compared with the thresholds identified in the appropriate regulations. Refer to Section 10.0 for qualify assurance requirements.

10.0 QUALITY ASSURANCE REQUIREMENTS

10.1 All data, including quality assurance data, should be maintained and available for reference or inspection.

10.2 A minimum of one blank (extraction fluid #1) for every 10 extractions that have been conducted in an extraction vessel shall be employed as a check to determine if any memory effects from the extraction equipment are occurring.

10.3 For each analytical batch (up to twenty samples), it is recommended that a matrix spike be performed. Addition of matrix spikes should occur once the TCLP extract has been generated (i.e., should not occur prior to performance of the TCLP procedure). The purpose of the matrix spike is to monitor the adequacy of the analytical methods used on the TCLP extract and for determining if matrix interferences exist in analyte detection.

10.4 All quality control measures described in the appropriate analytical methods shall be followed.

10.5 The method of standard addition shall be employed for each analyte if: 1) recovery of the compound from the TCLP extract is not between 50 and 150%, or 2) if the concentration of the constituent measured in the extract is within 20% of the appropriate regulatory threshold. If more than one extraction is being run on samples of the same waste (up to twently samples), the method of standard addition need be applied only once and the percent recoveries applied to the remainder of the extractions.

10.6 Samples must undergo TCLP extraction within the following time period after sample receipt: Volatiles, 14 days; Semi-Volatiles, 40 days; Mercury, 28 days; and other Metals, 180 days. Extraction of the solid portion of the waste should be initiated as soon as possible following initial solid/liquid separation. TCLP extracts shall be analyzed after generation and preservation within the following periods: Volatiles, 14 days; Semi-Volatiles, 40 days; Mercury, 28 days; and other Metals, 180 days.

TABLE 1—VOLATILE CONTAMINANTS [1]

Compound	CAS No.
Acetone	67-64-1
n-Butyl alcohol	71-36-6
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Methylene chloride	75-09-2
Methyl ethyl ketone	78-93-3
Methyl isobutyl ketone	108-10-1
Tetrachloroethylene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane	71-55-6
Trichloroethylene	79-01-6
Trichlorofluoromethane	75-69-4
Xylene	1330-20-7

[1] Includes compounds identified in the Land Disposal Restrictions Rule. If any or all of these compounds are of concern, the zero-headspace extractor vessel shall be used. If other (non-volatile) compounds are of concern, the conventional bottle extractor shall be used.

TABLE 2—SUITABLE ROTARY AGITATION APPARATUS [1]

Company	Location	Model
Associated Design and Manufacturing Company.	Alexandria, VA (703) 549-5999	4-vessel device, 6-vessel device
Lars Lande Manfacturing.	Whitmore Lake, MI (313) 449-4116.	10-vessel device, 5-vessel device
IRA Machine Shop and Laboratory.	Santurce, PR (809) 752-4004.	16-vessel device
EPRI Extractor		6-vessel device [2]
REXNORD	Milwaukee, WI (414) 643-2850.	6-vessel device
Analytical Testing and Consulting Services, Inc.	Warrington, PA (215) 343-4490	4-vessel device

[1] Any device that rotates the extraction vessel in an end-over-end fashion at 30 ± 2 rpm is acceptable.

[2] Although this device is suitable, it is not commercially made. It may also require retrofitting to accommodate ZHE devices.

TABLE 3—SUITABLE ZERO-HEADSPACE EXTRACTOR VESSELS

Company	Location	Model No.
Associated Design & Manufacturing Co..	Alexandria, VA, (703) 549-5999	3740-ZHB, Gas Pressure Device.
Millipore Corp.	Bedford, MA, (800) 225-3384	SD1 P581 C5, Gas Pressure Device.
Analytical Testing & Consulting Services, Inc..	Warrington, PA, (215) 343-4490	CI02, Mechanical Pressure Device.

Table 4—Suitable Filter Holders [1]

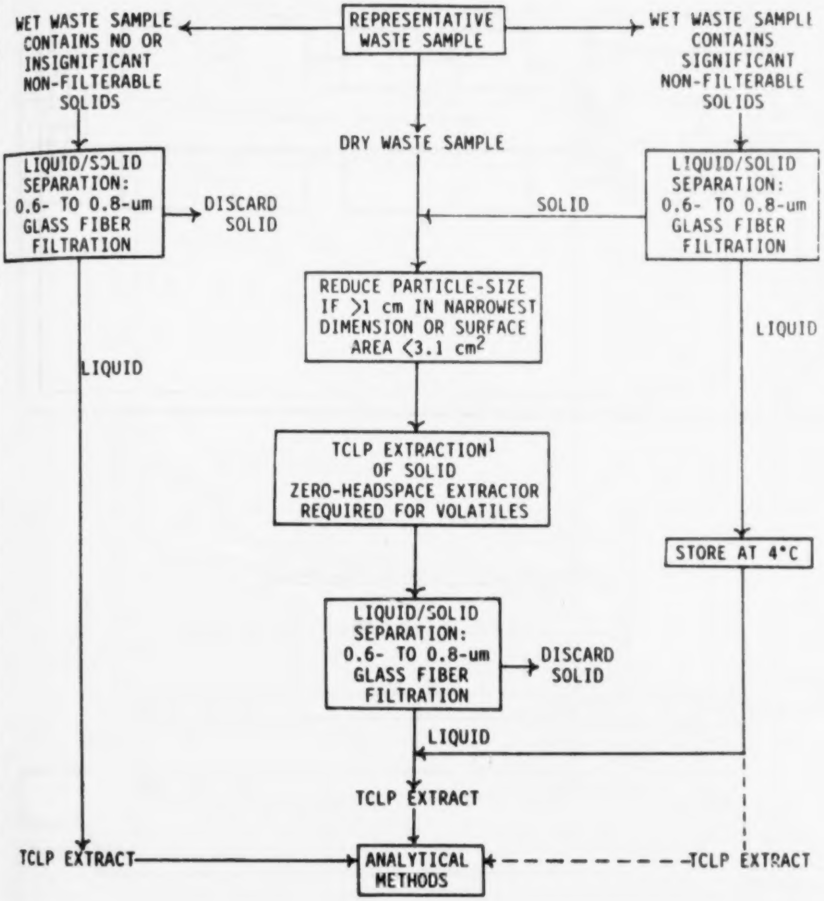
Company	Location	Model	Size
Nuclepore Corp.	Pleasanton, CA, (800) 882-7711	425910	142 mm.
		410400	47 mm.
Micro Filtration Systems	Dublin, CA, (415) 828-6010	302400	142 mm.
Millipore Corp.	Bedford, MA, (800) 225-3384	YT30142HW	142 mm.
		XX1004700	47 mm.

[1] Any device capable of separating the liquid from the solid phase of the waste is suitable, providing that it is chemically compatible with the waste and the constituents to be analyzed. Plastic devices (not listed above) may be used when only inorganic contaminants are of concern. The 142 mm size filter holder is recommended.

Table 5—Suitable Filter Media

Company	Location	Model	Pore size[1]
Whatman Laboratory Products, Inc.	Clifton, NJ, (201) 773-5800	GFF	0.7

[1] Nominal pore size.


REPRESENTATIVE WASTE SAMPLE
WET WASTE SAMPLE CONTAINS NO OR INSIGNIFICANT NON-FILTERABLE SOLIDS
WET WASTE SAMPLE CONTAINS SIGNIFICANT NON-FILTERABLE SOLIDS
DRY WASTE SAMPLE
LIQUID/SOLID SEPARATION: 0.6- TO 0.8-um GLASS FIBER FILTRATION
DISCARD SOLID
SOLID
LIQUID/SOLID SEPARATION: 0.6- TO 0.8-um GLASS FIBER FILTRATION
REDUCE PARTICLE-SIZE IF >1 cm IN NARROWEST DIMENSION OR SURFACE AREA <3.1 cm2
LIQUID
LIQUID
TCLP EXTRACTION1 OF SOLID ZERO-HEADSPACE EXTRACTOR REQUIRED FOR VOLATILES
STORE AT 4°C
LIQUID/SOLID SEPARATION: 0.6- TO 0.8-um GLASS FIBER FILTRATION
DISCARD SOLID
LIQUID
TCLP EXTRACT
TCLP EXTRACT
ANALYTICAL METHODS
TCLP EXTRACT

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[1] The extraction fluid employed is a function of the alkalinity of the solid phase of the waste.

FIGURE 1: TCLP FLOWCHART

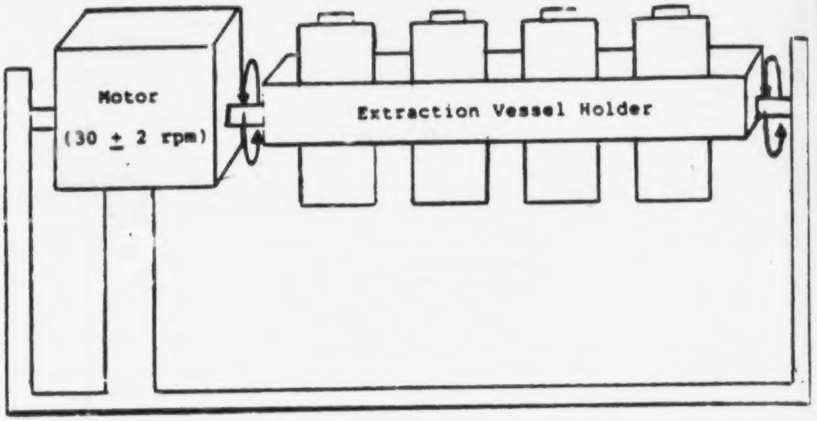
Motor
(30 ± 2 rpm)
Extraction Vessel Holder

Figure 2: Rotary Agitation

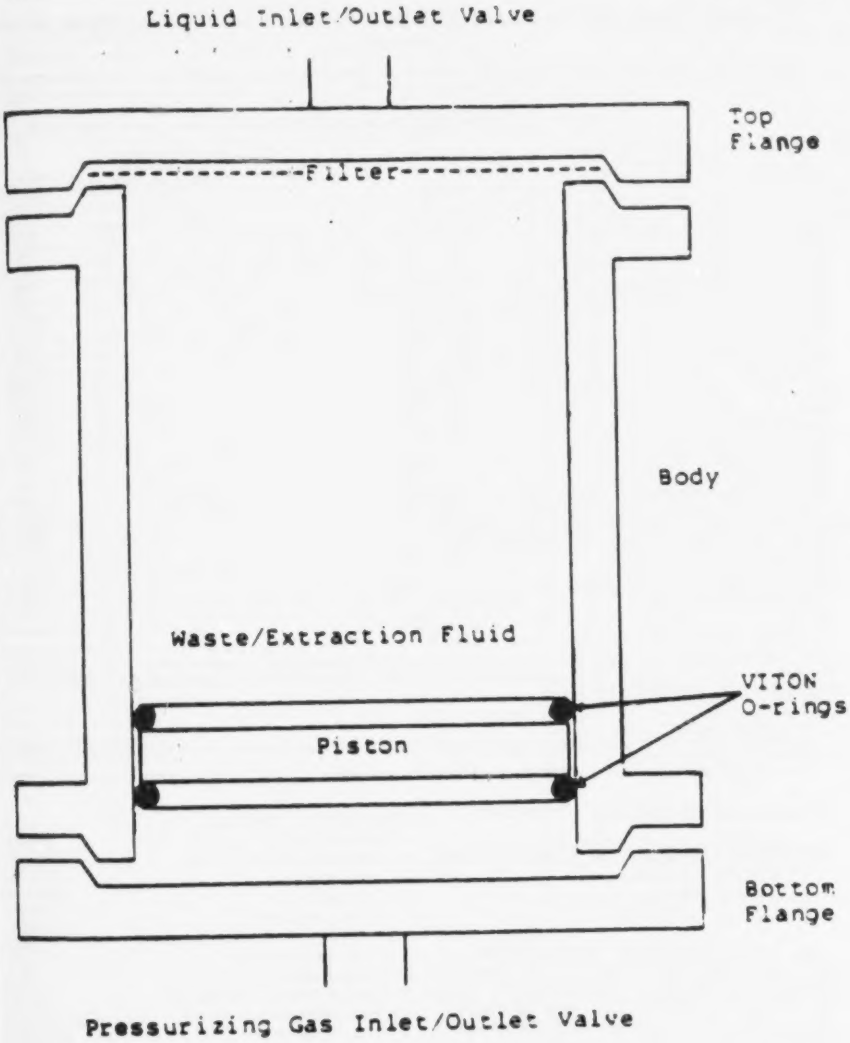
Liquid Inlet/Outlet Valve
Top Flange
Filter
Body
Waste/Extraction Fluid
VITON O-rings
Piston
Bottom Flange
Pressurizing Gas Inlet/Outlet Valve

Figure 3: Zero-Headspace Extraction Vessel

[51 FR 40643, Nov. 7, 1986; 52 FR 21018, June 4, 1987]

APPENDIX II—TREATMENT STANDARDS (AS CONCENTRATIONS IN THE TREATMENT RESIDUAL EXTRACT)

[Note: The technologies shown are the basis of the treatment standards. They are not required to be used in meeting the treatment standards]

Constituents of F001-F005 Spent Solvent Wastes	Waste Treatability Groups For F001-F005 Spent Solvent Wastes (mg/l)			
	Wastewater	Technology Basis [1]	Wastewater Generated by Pharmaceutical Plant [2]	All Other [3]
Acetone	0.05	SS		0.59
n-Butyl Alcohol	5.00	SS		5.00
Carbon disulfide	1.05	SS		4.81
Carbon tetrachloride	0.05	B		0.96
Chlorobenzene	0.15	B&AC		0.05
Cresols (cresylic acid)	2.82	AC		0.75
Cyclohexanone	0.125	SS		0.75
1,2-Dichlorobenzene	0.65	B&AC		0.125
Ethyl acetate	0.05	SS		0.75
Ethylbenzene	0.05	B		0.053
Ethyl ether	0.05	SS		0.75
Isobutanol	5.00	SS		5.00
Methanol	0.25	SS		0.75
Methylene chloride	0.20	B	12.7	0.96
Methyl ethyl ketone	0.05	SS		0.75
Methyl isobutyl ketone	0.05	SS		0.33
Nitrobenzene	0.66	SS&AC		0.125
Pyridine	1.12	B&AC		0.33
Tetrachloroethylene	0.079	B		0.05
Toluene	1.12	B&AC		0.33
1,1,1-Trichloroethane	1.05	SS		0.41
1,1,2-Trichloro-1,2,2-trifluoroethane	1.05	SS		0.96
Trichloroethylene	0.062	B&AC		0.091
Trichlorofluoromethane	0.05	B		0.96
Xylene	0.05	AC		0.15

[1] In some instances other technologies achieved somewhat lower treatment values but waste characterization data were insufficient to identify separate treatability groups. Refer to the BDAT background document for a detailed explanation of the determination of the treatment standards.

SS = steam stripping
B = biological treatment
AC = activated carbon

[2] Wastewaters generated by pharmaceutical plants must be treated to the standards given for all other wastewaters except in the case of methylene chloride.

[3] The treatment standards in this treatability group are based on incineration.

[51 FR 40653, Nov. 7, 1986]

APPENDIX III—LIST OF HALOGENATED ORGANIC COMPOUNDS REGULATED UNDER § 268.32

In determining the concentration of HOCs in a hazardous waste for purposes of the § 268.32 land disposal prohibition, EPA has defined the HOCs that must be included in the calculation as any compounds having a carbon-halogen bond which are listed in this Appendix (see § 268.2). Appendix III to Part 268 consists of the following compounds:

Volatiles

Bromodichloromethane
Bromomethane
Carbon Tetrachloride
Chlorobenzene
2-Chloro-1,3-butadiene
Chlorodibromomethane
Chloroethane
2-Chloroethyl vinyl ether
Chloroform
Chloromethane
3-Chloropropene
1,2-Dibromo-3-chloropropane
1,2-Dibromomethane
Dibromomethane
Trans-1,4-Dichloro-2-butene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
Trans-1,2-Dichloroethene
1,2-Dichloropropane
Trans-1,3-Dichloropropene
cis-1,3-Dichloropropene
Iodomethane
Methylene chloride
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethene

Tribromomethane
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichloromonofluoromethane
1,2,3-Trichloropropane
Vinyl chloride

Semivolatiles

Bis(2-chloroethoxy)ethane
Bis(2-chloroethyl)ether
Bis(2-chloroisopropyl) ether
p-Chloroaniline
Chlorobenzilate
p-Chloro-m-cresol
2-Chloronaphthalene
2-Chlorophenol
3-Chloropropionitrile
m-Dichlorobenzene
o-Dichlorobenzene
p-Dichlorobenzene
3,3'-Dichlorobenzidine
2,4-Dichlorophenol
2,6-Dichlorophenol
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Hexachloroprophene
Hexachloropropene
4,4'-Methylenebis(2-chloroaniline)
Pentachlorobenzene
Pentachloroethane
Pentachloronitrobenzene
Pentachlorophenol
Pronamide
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol
1,2,4-Trichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
Tris(2,3-dibromopropyl)phosphate

Organochlorine Pesticides

Aldrin
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC
Chlordane
DDD
DDE
DDT
Dieldrin
Endosulfan I
Endosulfan II
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
Isodrin
Kepone
Methoxyclor
Toxaphene

Phenoxyacetic Acid Herbicides

2,4-Dichlorophenoxyacetic acid
Silvex
2,4,5-T

PCBs

Aroclor 1016
Aroclor 1221
Aroclor 1232
Aroclor 1242
Aroclor 1248
Aroclor 1254
Aroclor 1260
PCBs not otherwise specified

Dioxins and Furans

Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofuran
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofuran
Tetrachlorodibenzo-p-dioxins
Tetrachlorodibenzofuran
2,3,7,8-Tetrachlorodibenzo-p-dioxin

[52 FR 25791, July 8, 1987]

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

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270.4 Effect of a permit.
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Subpart F—Special Forms of Permits

270.60 Permits by rule.
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270.64 Interim permits for UIC wells.
270.65 Research, development, and demonstration permits.

Subpart G—Interim Status

270.70 Qualifying for interim status.
270.71 Operation during interim status.
270.72 Changes during interim status.
270.73 Termination of interim status.

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Source: 48 FR 14228, Apr. 1, 1983, unless otherwise noted.

Subpart A—General Information

§ 270.1 Purpose and scope of these regulations.

(a) *Coverage.* (1) These permit regulations establish provisions for the Hazardous Waste Permit Program under Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA), (Pub. L. 94-580, as amended by Pub. L. 95-609 and by Pub. L. 96-482; 42 U.S.C. 6901 et seq.). They apply to EPA and to approved States to the extent provided in Part 271.

(2) The regulations in this part cover basic EPA permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. These regulations are part of a regulatory scheme implementing RCRA set forth in different parts of the Code of Federal Regulations. The following chart indicates where the regulations implementing RCRA appear in the Code of Federal Regulations.

Section of RCRA	Coverage	Final regulation
Subtitle C	Overview and definitions	40 CFR Part 260
3001	Indentification and listing of hazardous waste.	40 CFR Part 261
3002	Generators of hazardous waste.	40 CFR Part 262
3003	Transporters of hazardous waste.	40 CFR Part 263
3004	Standards for HWM facilities.	40 CFR Parts 264, 265, 266, and 267
3005	Permit requirements for HWM facilities.	40 CFR Parts 270 and 124
3006	Guidelines for State programs.	40 CFR Part 271
3010	Preliminary notification of HWM activity.	(public notice) 45 FR 12746 February 26, 1980

(3) *Technical regulations.* The RCRA permit program has separate additional Regulations that contain technical requirements. These separate regulations are used by permit issuing authorities to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR Parts 264, 266, and 267.

(b) *Overview of the RCRA Permit Program.* Not later than 90 days after the promulgation or revision of regulations in 40 CFR Part 261 (identifying and listing hazardous wastes) generators and transporters of hazardous waste, and owners or operators of hazardous waste treatment, storage, or disposal facilities may be required to file a notification of that activity under section 3010. Six months after the initial promulgation of the Part 261 regulations, treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited. A RCRA permit application consists of two parts, Part A (see § 270.13) and Part B (see § 270.14 and applicable sections in §§ 270.15 through 270.29). For "existing HWM facilities," the requirement to submit an application is satisfied by submitting only Part A of the permit application until the date the Director sets for submitting Part B of the application. (Part A consists of Forms 1 and 3 of the Consolidated Permit Application Forms.) Timely submission of both notification under section 3010 and Part A qualifies owners and operators of existing HWM facilities (who are required to have a permit) for interim status under section 3005(e) of RCRA. Facility owners and operators with interim status are treated as having been issued a permit until EPA or a State with interim authorization for Phase II or final authorization under Part 271 makes a final determination on the permit application. Facility owners and operators with interim status must comply with interim status standards set forth at 40 CFR Part 265 or with the analagous provisions of a State program which has received interim or final authorization under Part 271. Facility owners and operators with interim status are not relieved from complying with other State requirements. For existing HWM facilities, the Director shall set a date, giving at least six months notice, for submission of Part B of the application. There is no form for Part B of the application; rather, Part B must be submitted in narrative form and contain the information set forth in the applicable sections of §§ 270.14 through 270.29. Owners or operators of new HWM facilities must submit Parts A and B of the permit application at least 180 days before physical construction is expected to commence.

(c) *Scope of the RCRA permit requirement.* RCRA requires a permit for the "treatment," "storage," and "disposal" of any "hazardous waste" as identified or listed in 40 CFR Part 261. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in § 270.2. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure (according to § 265.115) after January 26, 1983, must have post-closure permits, unless they demonstrate closure by removal as provided under § 270.1(c) (5) and (6). If a post-closure permit is required, the permit must address applicable Part 264 Groundwater Monitoring, Unsaturated Zone Monitoring, Corrective Action, and Post-closure Care Requirements of this chapter. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under this section.

(1) *Specific inclusions.* Owners and operators of certain facilities require RCRA permits as well as permits under other programs for certain aspects of the facility operation. RCRA permits are required for:

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste, (See § 270.64). However, the owner and operator with a UIC permit in a State with an approved or promulgated UIC program, will be deemed to have a RCRA permit for the injection well itself if they comply with the requirements of § 270.60(b) (permit-by-rule for injection wells).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste will be deemed to have a RCRA permit for that waste if they comply with the requirements of § 270.60(c) (permit-by-rule for POTWs).

(iii) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities associated with an ocean disposal operation. However, the owner and operator will be deemed to have a RCRA permit for ocean disposal from the barge or vessel itself it they comply with the requirements of

§ 270.60(a) (permit-by-rule for ocean disposal barges and vessels).

(2) *Specific exclusions.* The following persons are among those who are not required to obtain a RCRA permit:

(i) Generators who accumulate hazardous waste on-site for less than the time periods provided in 40 CFR 262.34.

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in § 262.70 of this chapter;

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulations under this part by 40 CFR 261.4 or 261.5 (small generator exemption).

(iv) Owners or operators of totally enclosed treatment facilities as defined in 40 CFR 260.10.

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in 40 CFR 260.10.

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less.

(vii) Persons adding absorbent material to waste in a container (as defined in § 260.10 of this chapter) and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §§ 264.17(b), 264.171, and 264.172 of this chapter are complied with.

(3) *Further exclusions.* (i) A person is not required to obtain an RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities.

(4) *Permits for less than an entire facility.* EPA may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

(5) *Closure by removal.* Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Part 265 standards must obtain a post-closure permit unless they can demonstrate to the Regional Administrator that the closure met the standards for closure by removal or decontamination in § 264.228, § 264.280(e), or § 264.258, respectively. The demonstration may be made in the following ways:

(i) If the owner/operator has submitted a Part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that section 264 closure by removal standards were met. If the Regional Administrator believes that § 264 standards were met, he/she will notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in paragraph (c)(6) of this section.

(ii) If the owner/operator has not submitted a Part B application for a post-closure permit, the owner/operator may petition the Regional Administrator for a determination that a post-closure permit is not required because the closure met the applicable Part 264 closure standards.

(A) The petition must include data demonstrating that closure by removal or decontamination standards were met, or it must demonstrate that the unit closed under State requirements that met or exceeded the applicable 264 closure-by-removal standard.

(B) The Regional Administrator shall approve or deny the petition according to the procedures outlined in paragraph (c)(6) of this section.

(6) *Procedures for closure equivalency determination.* (i) If a facility owner/operator seeks an equivalency demonstration under § 270.1(c)(5), the Regional Administrator will provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner/operator within 30 days from the date of the notice. The Regional Administrator will also, in response to a request or at his/her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the Part 265 closure to a Part 264 closure. The Regional Administrator will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.)

(ii) The Regional Administrator will determine whether the Part 265 closure met 264 closure by removal or decontamination requirements within 90 days of its receipt. If the Regional Administrator finds that the closure did not meet the applicable Part 264 standards, he/she will provide the owner/operator with a written statement of the reasons why the closure failed to meet Part 264 standards. The owner/operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Regional Administrator will review any additional information submitted and make a final determination within 60 days.

(iii) If the Regional Administrator determines that the facility did not close in accordance with Part 264 closure by removal standards, the facility is subject to post-closure permitting requirements.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 51 FR 10176, Mar. 24, 1986; 52 FR 45798, Dec. 1, 1987; 53 FR 27165, July 19, 1988; 54 FR 9607, Mar. 7, 1989]

§ 270.2 Definitions.

The following definitions apply to Parts 270, 271 and 124. Terms not defined in this section have the meaning given by RCRA.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions. Application also includes the information required by the Director under §§ 270.14 through 270.29 (contents of Part B of the RCRA application).

Approved program or approved State means a State which has been approved or authorized by EPA under Part 271.

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Closure means the act of securing a Hazardous Waste Management facility pursuant to the requirements of 40 CFR Part 264.

Component means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function (e.g., a pump seal, pump, kiln liner, kiln thermocouple).

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 92-217 and Pub. L. 95-576; 33 U.S.C. 1251 *et seq.*

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no approved State program, and there is an EPA administered program, Director means the Regional Administrator. When there is an approved State program, Director normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. In such cases, the term Director means the Regional Administrator and not the State Director.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water.

Disposal facility means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure.

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5 is not a "draft permit." A proposed permit is not a draft permit.

Elementary neutralization unit means a device which:

(a) Is used for neutralizing wastes only because they exhibit the corrosivity characteristic defined in § 261.22 of this chapter, or are listed in Subpart D of Part 261 of this chapter only for this reason; and

(b) Meets the definition of tank, tank system, container, transport vehicle, or vessel in § 260.10 of this chapter.

Emergency permit means a RCRA permit issued in accordance with § 270.61.

Environmental Protection Agency (EPA) means the United States Environmental Protection Agency.

EPA means the United States Environmental Protection Agency.

Existing hazardous waste management (HWM) facility or existing facility means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(a) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(b)(1) A continuous on-site, physical construction program has begun; or

(2) The owner or operator has entered into contractual obligations which cannot be cancelled or modified without substantial loss—for physical construction of the facility to be completed within a reasonable time.

Facility mailing list means the mailing list for a facility maintained by EPA in accordance with 40 CFR 124.10(c)(viii).

Facility or activity means any HWM facility or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA program.

Federal, State and local approvals or permits necessary to begin physical construction means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

Final authorization means approval by EPA of a State program which has met the requirements of section 3006(b) of RCRA and the applicable requirements of Part 271, Subpart A.

Functionally equivalent component means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

Generator means any person, by site location, whose act, or process produces "hazardous waste" identified or listed in 40 CFR Part 261.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in 40 CFR 261.3.

Hazardous Waste Management facility (HWM facility) means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them).

HWM facility means Hazardous Waste Management facility.

Injection well means a well into which fluids are being injected.

In operation means a facility which is treating, storing, or disposing of hazardous waste.

Interim authorization means approval by EPA of a State hazardous waste program which has met the requirements of section 3006(c) of RCRA and applicable requirements of Part 271, Subpart B.

Major facility means any facility or activity classified as such by the Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director.

Manifest means the shipping document originated and signed by the generator which contains the information required by Subpart B of 40 CFR Part 262.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an approved program.

NPDES means National Pollutant Discharge Elimination System.

New HWM facility means a Hazardous Waste Management facility which began operation or for which construction commenced after November 19, 1980.

Off-site means any site which is not on-site.

On-site means on the same or geographically continguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right(s)-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

Owner or operator means the owner or operator of any facility or activity subject to regulation under RCRA.

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of this part and Parts 271 and 124. Permit includes permit by rule (§ 270.60), and emergency permit (§ 270.61). Permit does not include RCRA interim status (Subpart G of this part), or any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Permit-by-rule means a provision of these regulations stating that a facility or activity is deemed to have a RCRA permit if it meets the requirements of the provision.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Phase I means that phase of the Federal hazardous waste management program commencing on the effective date of the last of the following to be initially promulgated: 40 CFR Parts 260, 261, 262, 263, 265, 270 and 271. Promulgation of Phase I refers to promulgation of the regulations necessary for Phase I to begin.

Phase II means that phase of Federal hazardous waste management program commencing on the effective date of the first subpart of 40 CFR Part 264, Subparts F through R to be initially promulgated. Promulgation of Phase II refers to promulgation of the regulations necessary for Phase II to begin.

Physical construction means excavation, movement of earth, erection of forms or structures, or similar activity to prepare an HWM facility to accept hazardous waste.

POTW means publicly owned treatment works.

Publicly owned treatment works (POTW) means any device or system unsed in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C. 6901 *et seq.*)

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the Act and regulations.

SDWA means the Safe Drinking Water Act (Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 3001 *et seq.*).

Site means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

State Director means the chief administrative officer of any State agency operating an approved program, or the delegated representative of the State Director. If responsibility is divided among two or more State agencies, State Director means the chief administrative officer of the State agency authorized to perform the particular procedure or function to which reference is made.

State/EPA Agreement means an agreement between the Regional Administrator and the State which coordinates EPA and State activities, responsibilities and programs.

Storage means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

Transfer facility means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

Transporter means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

UIC means the Underground Injection Control Program under Part C of the Safe Drinking Water Act, including an approved program.

Underground injection means a well injection.

Underground source of drinking water (USDW) means an aquifer or its portion:

(a)(1) Which supplies any public water system; or

(2) Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/l total dissolved solids; and

(b) Which is not an exempted aquifer.

USDW means underground source of drinking water.

Wastewater treatment unit means a device which:

(a) Is part of a wastewater treatment facility which is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in § 261.3 of this chapter, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter; and

(c) Meets the definition of tank or tank system in § 260.10 of this chapter.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 53 FR 34087, Sept. 2, 1988; 53 FR 37935, Sept. 28, 1988]

§ 270.3 Considerations under Federal law.

The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed.

(a) *The Wild and Scenic Rivers Act.* 16 U.S.C. 1273 *et seq.* Section 7 of the Act prohibits the Regional Administrator from assisting by license or otherwise the construction of any water resources project that would have a direct, adverse effect on the values for which a national wild and scenic river was established.

(b) *The National Historic Preservation Act of 1966.* 16 U.S.C. 470 *et seq.* Section 106 of the Act and implementing regulations (36 CFR Part 800) require the Regional Administrator, before issuing a license, to adopt measures when feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

(c) *The Endangered Species Act.* 16 U.S.C. 1531 *et seq.* Section 7 of the Act and implementing regulations (50 CFR Part 402) require the Regional Administrator to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

(d) *The Coastal Zone Management Act.* 16 U.S.C. 1451 *et seq.* Section 307(c) of the Act and implementing regulations (15 CFR Part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

(e) *The Fish and Wildlife Coordination Act.* 16 U.S.C. 661 *et seq.* requires that the Regional Administrator, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

(f) *Executive orders.* [Reserved]

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§ 270.4 Effect of a permit.

(a) Compliance with an RCRA permit during its term constitutes compliance for purpose of enforcement, with Subtitle C of RCRA except for those requirements not included in the permit which become effective by statute, or which are promulgated under Part 268 of this chapter restricting the placement of hazardous wastes in or on the land.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

[48 FR 14228, Apr. 1, 1983, as amended at 52 FR 45799, Dec. 1, 1987]

EDITORIAL NOTE: At 53 FR 37935, September 28, 1988, a rule document incorrectly amended § 270.1 by revising the last sentence of paragraph (a) to read as follows:

§ 270.4 Effect of a permit.

(a) * * * However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§ 270.41 and 270.43, or the permit may be modified upon the request of the permittee as set forth in § 270.42.

* * * * *

The existing text in § 270.4(a) included only one sentence, therefore, this amendment could not be incorporated. At a later date, EPA will publish a document in the FEDERAL REGISTER to correctly amend this paragraph.

§ 270.5 Noncompliance and program reporting by the Director.

The Director shall prepare quarterly and annual reports as detailed below. When the State is the permit-issuing authority, the State Director shall submit any reports required under this section to the Regional Administrator. When EPA is the permit-issuing authority, the Regional Administrator shall submit any report required under this section to EPA Headquarters. For purposes of this section only, RCRA permittees shall include RCRA interim status facilities, when appropriate.

(a) *Quarterly reports.* The Director shall submit quarterly narrative reports for major facilities as follows:

(1) *Format.* The report shall use the following format:

(i) Information on noncompliance for each facility;

(ii) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first;

(iii) For each entry on the list, include the following information in the following order:

(A) Name, location, and permit number of the noncomplying permittee.

(B) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.

(C) The date(s) and a brief description of the action(s) taken by the Director to ensure compliance.

(D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.

(E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) *Instances of noncompliance to be reported.* Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

(i) *Failure to complete construction elements.* When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required element of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) *Modifications to schedules of compliance.* When a schedule of compliance in the permit has been modified under § 270.41 or § 270.42 because of the permittee's noncompliance.

(iii) *Failure to complete or provide compliance schedule or monitoring reports.* When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) *Deficient reports.* When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.

(v) *Noncompliance with other permit requirements.* Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or

(B) When the Director determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or

(C) When the Director determines significant permit non-compliance or other significant event has occurred such as a fire or explosion or migration of fluids into a USDW.

(vi) *All other.* Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) *Annual reports*—(1) *Annual noncompliance report.* Statistical reports shall be submitted by the Director on nonmajor RCRA permittees indicating the total number reviewed, the number of noncomplying nonmajor permittees, the number of enforcement actions, and number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) In addition to the annual noncompliance report, the Director shall prepare a "program report" which contains information (in a manner and form prescribed by the Administrator) on generators and transporters and the permit status of regulated facilities. The Director shall also include, on a biennial basis, summary information on the quantities and types of hazardous wastes generated, transported, treated, stored and disposed during the preceding odd-numbered year. This summary information shall be reported in a manner and form prescribed by the Administrator and shall be reported according to EPA characteristics and lists of hazardous wastes at 40 CFR Part 261.

(c) *Schedule.* (1) For all quarterly reports. On the last working day of May, August, November, and February, the State Director shall submit to the Regional Administrator information concerning noncompliance with RCRA permit requirements by major facilities in the State in accordance with the following schedule. The Regional Administrator shall prepare and submit information for EPA-issued permits to EPA Headquarters in accordance with the same schedule.

QUARTERS COVERED BY REPORTS ON NONCOMPLIANCE BY MAJOR DISCHARGERS

[Date for completion of reports]

January, February, and March	[1] May 31
April, May, and June	[1] August 31
July, August, and September	[1] November 30
October, November, and December.	[1] February 28

[1] Reports must be made available to the public for inspection and copying on this date.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§ 270.6 References.

(a) When used in Part 270 of this chapter, the following publications are incorporated by reference:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 [Second Edition, 1982 as amended by Update I (April, 1984), and Update II (April, 1985)]. The second edition of SW-846 and Updates I, II and III are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4600, as document no. PB 87-120-291. The cost is $48.95 for paper and $13.50 for microfiche.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, NW., Washington, DC 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the FEDERAL REGISTER.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 52 FR 8073, Mar. 16, 1987]

Subpart B—Permit Application

§ 270.10 General application requirements.

(a) *Permit application.* Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the Director as described in this section and §§ 270.70 through 270.73. Persons currently authorized with interim status shall apply for permits when required by the Director. Persons covered by RCRA permits by rule (§ 270.60), need not apply. Procedures for applications, issuance and administration of emergency permits are found exclusively in § 270.61. Procedures for application, issuance and administration of research, development, and demonstration permits are found exclusively in § 270.65.

(b) *Who applies?* When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner must also sign the permit application.

(c) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in paragraph (j) of this section. The Director may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(d) *Information requirements.* All applicants for RCRA permits shall provide information set forth in § 270.13 and applicable sections in §§ 270.14 through 270.29 to the Director, using the application form provided by the Director.

(e) *Existing HWM facilities and interim status qualifications.* (1) Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under the act that render the facility subject to the requirement to have a RCRA permit must submit Part A of their permit application no later than:

(i) Six months after the date of publication of regulations which first require them to comply with the standards set forth in 40 CFR Part 265 or 266, or

(ii) Thirty days after the date they first become subject to the standards set forth in 40 CFR Part 265 or 266, whichever first occurs.

(iii) For generators generating greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and treats, stores, or disposes of these wastes on-site, by March 24, 1987.

NOTE: For facilities which must comply with Part 265 because they handle a waste listed in EPA's May 19, 1980, Part 261 regulations (45 FR 33006 *et seq.*), the deadline for submitting an application is November 19, 1980. Where other existing facilities must begin in complying with Part 265 or 266 at a later date because of revisions to Part 260, 261, 265, or 266, the Administrator will specify in the preamble to those revisions when those facilities must submit a permit application.

(2) The Administrator may by publication in the FEDERAL REGISTER extend the date by which owners and operators of specified classes of existing hazardous waste management facilities must submit Part A of their permit application if he finds that (i) there has been substantial confusion as to whether the owners and operators of such facilities were required to file a permit application and (ii) such confusion is attributed to ambiguities in EPA's Parts 260, 261, 265, or 266 regulations.

(3) The Administrator may by compliance order issued under section 3008 of RCRA extend the date by which the owner and operator of an existing hazardous waste management facility must submit Part A of their permit application.

(4) At any time after promulgation of Phase II the owner and operator of an existing HWM facility may be required to submit Part B of their permit application. The State Director may require submission of Part B (or

equivalent completion of the State RCRA application process) if the State in which the facility is located has received interim authorization for Phase II or final authorization; if not, the Regional Administrator may require submission of Part B. Any owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing HWM facility may voluntarily submit Part B of the application at any time. Notwithstanding the above, any owner or operator of an existing HWM facility must submit a Part B permit application in accordance with the dates specified in § 270.73. Any owner or operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments under this Act that render the facility subject to the requirement to have a RCRA permit must submit a Part B application in accordance with the dates specified in § 270.73.

(5) Failure to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status under Part 124.

(f) *New HWM facilities.* (1) Except as provided in paragraph (f)(3) of this section, no person shall begin physical construction of a new HWM facility without having submitted Parts A and B of the permit application and having received a finally effective RCRA permit.

(2) An application for a permit for a new HWM facility (including both Parts A and B) may be filed any time after promulgation of those standards in Part 264, Subpart I *et seq.* applicable to such facility. The application shall be filed with the Regional Administrator if at the time of application the State in which the new HWM facility is proposed to be located has not received Phase II interim authorization for permitting such facility or final authorization; otherwise it shall be filed with the State Director. Except as provided in paragraph (f)(3) of this section, all applications must be submitted at least 180 days before physical construction is expected to commence.

(3) Notwithstanding paragraph (f)(1) of this section, a person may construct a facility for the incineration of polychlorinated biphenyls pursuant to an approval issued by the Administrator under section (6)(e) of the Toxic Substances Control Act and any person owning or operating such a facility may, at any time after construction or operation of such facility has begun, file an application for a RCRA permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under Subtitle C of RCRA.

(g) *Updating permit applications.* (1) If any owner or operator of a HWM facility has filed Part A of a permit application and has not yet filed Part B, the owner or operator shall file an amended Part A application:

(i) With the Regional Administrator, if the facility is located in a State which has not obtained interim authorization for phase II or final authorization, within six months after the promulgation of revised regulations under Part 261 listing or identifying additional hazardous wastes, if the facility is treating, storing, or disposing of any of those newly listed or identified wastes.

(ii) With the State Director, if the facility is located in a State which has obtained Phase II interim authorization or final authorization, no later than the effective date of regulatory provisions listing or designating wastes as hazardous in that State in addition to those listed or designated under the previously approved State program, if the facility is treating, storing, or disposing of any of those newly listed or designated wastes; or

(iii) As necessary to comply with provisions of § 270.72 for changes during interim status or with the analogous provisions of a State program approved for final authorization or interim authorization for Phase II. Revised Part A applications necessary to comply with the provisions of § 270.72 shall be filed with the Regional Administrator if the State in which the facility in question is located does not have Phase II interim authorization or final authorization; otherwise it shall be filed with the State Director (if the State has an analogous provision).

(2) The owner or operator of a facility who fails to comply with the updating requirements of paragraph (g)(1) of this section does not receive interim status as to the wastes not covered by duly filed Part A applications.

(h) *Reapplications.* Any HWM facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(i) *Recordkeeping.* Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under §§ 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

(j) *Exposure information.* (1) After August 8, 1985, any Part B permit application submitted by an owner or operator of a facility that stores, treats, or dispose of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (j)(1)(i) of this section; and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part B application must submit the exposure information required in paragraph (j)(1) of this section.

(k) The Director may require a permittee or an applicant to submit information in order to establish permit conditions under §§ 270.32(b)(2) and 270.50(d) of this chapter.

(Approved by the Office of Management and Budget under control numbers 2050-0009, 2050-0002, and 2050-0007)

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 28751, July 15, 1985; 51 FR 10176, Mar. 24, 1986; 52 FR 45799, Dec. 1, 1987; 54 FR 9607, Mar. 7, 1989]

§ 270.11 Signatories to permit applications and reports.

(a) *Applications.* All permit applications shall be signed as follows:

(1) *For a corporation:* By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decisionmaking functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in § 270.11(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under § 270.11(a)(1)(ii) rather than to specific individuals.

(2) *For a partnership or sole proprietorship;* by a general partner or the proprietor, respectively; or

(3) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The

chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) *Reports.* All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

(c) *Changes to authorization.* If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) *Certification.* Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§ 270.12 Confidentiality of information.

(a) In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

(b) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

§ 270.13 Contents of Part A of the permit application.

Part A of the RCRA application shall include the following information:

(a) The activities conducted by the applicant which require it to obtain a permit under RCRA.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities, (1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and (2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under 40 CFR Part 261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

(1) Hazardous Waste Management program under RCRA.

(2) UIC program under the SWDA.

(3) NPDES program under the CWA.

(4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(5) Nonattainment program under the Clean Air Act.

(6) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(7) Ocean dumping permits under the Marine Protection Research and Sancturaies Act.

(8) Dredge or fill permits under section 404 of the CWA.

(9) Other relevant environmental permits, including State permits.

(l) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary.

(m) A brief description of the nature of the business.

§ 270.14 Contents of Part B: General requirements.

(a) Part B of the permit application consists of the general information requirements of this section, and the specific information requirements in §§ 270.14 through 270.29 applicable to the facility. The Part B information requirements presented in §§ 270.14 through 270.29 reflect the standards promulgated in 40 CFR Part 264. These information requirements are necessary in order for EPA to determine compliance with the Part 264 standards. If owners and operators of HWM facilities can demonstrate that the information prescribed in Part B can not be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the Director and signed in accordance with requirements in § 270.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a registered professional engineer.

(b) General information requirements. The following information is required for all HWM facilities, except as § 264.1 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous waste to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Part 264.

(3) A copy of the waste analysis plan required by § 264.13(b) and, if applicable § 264.13(c).

(4) A description of the security procedures and equipment required by § 264.14, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(5) A copy of the general inspection schedule required by § 264.15(b). Include where applicable, as part of the

inspection schedule, specific requirements in §§ 264.174, 264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, and 264.602.

(6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Part 264, Subpart C.

(7) A copy of the contingency plan required by Part 264, Subpart D. Note: Include, where applicable, as part of the contingency plan, specific requirements in §§ 264.227, 264.255, and 264.200.

(8) A description of procedures, structures, or equipment used at the facility to:

(i) Prevent hazards in unloading operations (for example, ramps, special forklifts);

(ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages; and

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing).

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with § 264.17 including documentation demonstrating compliance with § 264.17(c).

(10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard [§ 264.18(a)] the owner or operator of a new facility must identify the political jurisdiction (e.g., county, township, or election district) in which the facility is proposed to be located.

[*Comment*: If the county or election district is not listed in Appendix VI of Part 264, no further information is required to demonstrate compliance with § 264.18(a).]

(ii) If the facility is proposed to be located in an area listed in Appendix VI of Part 264, the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

(*1*) Published geologic studies,

(*2*) Aerial reconnaissance of the area within a five-mile radius from the facility,

(*3*) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

(*4*) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass with 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found.

[*Comment*: The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

[*Comment*: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(C) If applicable, and in lieu of paragraphs (b)(11)(iv) (A) and (B) of this section, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(*1*) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(*2*) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Parts 270, 271, 124, and 264 through 266 of this chapter.

(*3*) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(*4*) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with § 264.18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with § 264.16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in § 264.16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by §§ 264.112, 264.118, and 264.197. Include, where applicable, as part of the plans, specific requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601, and 264.603.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under § 264.119 have been filed.

(15) The most recent closure cost estimate for the facility prepared in accordance with § 264.142 and a copy of the documentation required to demonstrate financial assurance under § 264.143. For a new facility, a copy of

the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with § 264.144 plus a copy of the documentation required to demonstrate financial assurance under § 264.145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of § 264.147. For a new facility, documentation showing the amount of insurance meeting the specification of § 264.147(a) and, if applicable, § 264.147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in § 264.147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with § 264.149 or § 264.150.

(19) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date.

(ii) 100-year floodplain area.

(iii) Surface waters including intermittant streams.

(iv) Surrounding land uses (residential, commercial, agricultural, recreational).

(v) A wind rose (i.e., prevailing windspeed and direction).

(vi) Orientation of the map (north arrow).

(vii) Legal boundaries of the HWM facility site.

(viii) Access control (fences, gates).

(ix) Injection and withdrawal wells both on-site and off-site.

(x) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.)

(xi) Barriers for drainage or flood control.

(xii) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas).

NOTE: For large HWM facilities the Agency will allow the use of other scales on a case-by-case basis.

(20) Applicants may be required to submit such information as may be necessary to enable the Regional Administrator to carry out his duties under other Federal laws as required in § 270.3 of this part.

(21) For land disposal facilities, if a case-by-case extension has been approved under § 268.5 or a petition has been approved uner § 268.6, a copy of the notice of approval for the extension or petition is required.

(c) *Additional information requirements.* The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in § 264.90(b) of this chapter:

(1) A summary of the ground-water monitoring data obtained during the interim status period under §§ 265.90 through 265.94, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow direction and rate, and the basis for

such identification (*i.e.*, the information obtained from hydrogeologic investigations of the facility area).

(3) On the topographic map required under paragraph (b)(19) of this section, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under § 264.95, the proposed location of ground-water monitoring wells as required under § 264.97, and, to the extent possible, the information required in paragraph (c)(2) of this section.

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19) of this section;

(ii) Identifies the concentration of each Appendix IX, of Part 264 of this chapter, constituent throughout the plume or identifies the maximum concentrations of each Appendix IX constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of § 264.97.

(6) If the presence of hazardous constituents has *not* been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of § 264.98. This submission must address the following items specified under § 264.98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of the permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of § 264.99. Except as provided in § 264.98(h)(5), the owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of § 264.100, unless the owner or operator obtains written authorization in advance from the Regional Administrator to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with § 264.99, the owner or operator must address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with §§ 264.97 and 264.99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in § 264.94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of § 264.97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under § 264.94 Table 1, or if ground water monitoring conducted at the time of permit application under §§ 265.90 through 265.94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator

must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of § 264.100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Regional Administrator that alternate concentration limits will protect human health and the environment after considering the criteria listed in § 264.94(b). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of § 264.99 and paragraph (c)(6) of this section. To demonstrate compliance with § 264.100, the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in § 264.94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

(v) The permit may contain a schedule for submittal of the information required in paragraphs (c)(8) (iii) and (iv) provided the owner or operator obtains written authorization from the Regional Administrator prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units.

(1) The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under paragraph (b)(19) of this section.

(ii) Designation of type of unit.

(iii) General dimensions and structural description (supply any available drawings).

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

(2) The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

(3) The owner/operator must conduct and provide the results of sampling and analysis of groundwater, landsurface, and subsurface strata, surface water, or air, which may include the installation of wells, where the Director ascertains it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.

(Approved by the Office of Management and Budget under control numbers 2050-0009, 2050-0002, and 2050-0007)

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 51 FR 16458, May 2, 1986; 51 FR 25486, July 14, 1986; 51 FR 40653, Nov. 7, 1986; 52 FR 23450, July 9, 1987; 52 FR 25953, July 9, 1987; 52 FR 33936, Sept. 9, 1987; 52 FR 45799, Dec. 1, 1987; 52 FR 46965, Dec. 10, 1987; 54 FR 617, Jan. 9, 1989]

§ 270.15 Specific Part B information requirements for containers.

Except as otherwise provided in § 264.170, owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with § 264.175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with § 264.175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with § 264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and § 264.177(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§ 264.177 (a) and (b), and 264.17 (b) and (c).

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.16 Specific Part B information requirements for tank systems.

Except as otherwise provided in § 264.190, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

(a) A written assessment that is reviewed and certified by an independent, qualified, registered professional engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under §§ 264.191 and 264.192;

(b) Dimensions and capacity of each tank;

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

(d) A diagram of piping, instrumentation, and process flow for each tank system;

(e) A description of materials and equipment used to provide external corrosion protection, as required under § 264.192(a)(3)(ii);

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with § 264.192 (b), (c), (d), and (e);

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of § 264.193 (a), (b), (c), (d), (e), and (f);

(h) For tank systems for which a variance from the requirements of § 264.193 is sought (as provided by §§ 264.193(g)):

(1) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the ground water or surface water during the life of the facility, or

(2) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under § 264.194(b); and

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of §§ 264.198 and 264.199.

(Information collection requirements contained in paragraphs (a)-(j) were approved by the Office of Management and Budget under control number 2050-0050)

[51 FR 25486, July 14, 1986; 51 FR 29431, Aug. 15, 1986]

§ 270.17 Specific Part B information requirements for surface impoundments.

Except as otherwise provided in § 264.1, owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of § 264.221. This submission must address the following items as specified in § 264.221:

(1) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by § 264.221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Prevention of overtopping; and

(3) Structural integrity of dikes;

(c) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of § 264.226(a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5);

(d) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under § 264.226(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(e) A description of the procedure to be used for removing a surface impoundment from service, as required under § 264.227(b) and (c). This information should be included in the contingency plan submitted under § 270.14(b)(7);

(f) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under § 264.228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed-plans and an engineering report describing how § 264.228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13);

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how § 264.229 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how § 264.230 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.231. This submission must address the following items as specified in § 264.231:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985]

§ 270.18 Specific Part B information requirements for waste piles

Except as otherwise provided in § 264.1, owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to § 264.251 and Subpart F of Part 264 as provided by § 264.250(c) or § 264.90(2), an explanation of how the standards of § 264.250(c) will be complied with or detailed plans and an engineering report describing how the requirements of § 264.90(b)(2) will be met.

(c) Detailed plans and an engineering report describing how the pile is or will be designed, constructed, operated and maintained to meet the requirements of § 264.251. This submission must address the following items as specified in § 264.251:

(1) The liner system (except for an existing portion of a pile). If an ex-

emption from the requirement for a liner is sought, as provided by § 264.252(b), the owner or operator must submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.254(a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5).

(e) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(f) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of § 264.256 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be place in a waste pile, an explanation of how § 264.257 will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under § 264.258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed (as defined in § 264.250(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.259. This submission must address the following items as specified in § 264.259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985]

§ 270.19 Specific Part B information requirements for incinerators.

Except as § 264.340 of this chapter provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of (a), (b), or (c) of this section.

(a) When seeking an exemption under § 264.340 (b) or (c) of this chapter (Ignitable, corrosive, or reactive wastes only):

(1) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of this chapter, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or

(2) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of this chapter, solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5) of this chapter, and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Part 261, Subpart C of this chapter; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics

listed in § 261.23(a) (1), (2), (3), (6), (7), or (8) of this chapter, and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with § 270.62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity (if applicable), or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII, of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test methods for the evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6 and referenced in 40 CFR Part 261, Appendix III), or their equivalent.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6).

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in § 264.343 of this chapter.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Decription of auxiliary fuel system (type/feed).

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraph (c)(1) of this section. This analysis should specify the POHC's which the applicant has idenitified in the waste for which a permit is sought, and any differeneces from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in § 264.343 of this chapter,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement),

(6) The expected incinerator operation information to demonstrate compliance with §§ 264.343 and 264.345 of this chapter including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas.

(ii) Waste feed rate.

(iii) Combustion zone temperature.

(iv) Indication of combustion gas velocity.

(v) Expected stack gas volume, flow rate, and temperature.

(vi) Computed residence time for waste in the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Director finds necessary to achieve the purposes of this paragraph.

(8) Waste analysis data, including that submitted in paragraph (c)(1) of this section, sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(d) The Director shall approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under § 264.345 of this chapter) operating conditions that will ensure that the performance standards in § 264.343 of this chapter will be met by the incinerator.

§ 270.20 Specific Part B information requirements for land treatment facilities.

Except as otherwise provided in § 264.1, owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under § 264.272. The description must include the following information;

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

(2) The data sources to be used to make the demonstration (*e.g.*, literature, laboratory data, field data, or operating data);

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test (*e.g.*, column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under § 264.271. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(1) The wastes to be land treated;

(2) Design measures and operating practices necessary to maximize treatment in accordance with § 264.273(a) including:

(i) Waste application method and rate;

(ii) Measures to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

(3) Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in § 264.278(a);

(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to § 264.13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of § 264.273. This submission must address the following items:

(1) Control of run-on;

(2) Collection and control of run-off;

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under § 270.14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under § 264.276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made.

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of § 264.276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under § 264.280(a)(8) and § 264.280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under § 270.14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of § 264.281 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how § 264.282 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.283. This submission must address the following items as specified in § 264.283:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attentuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 2006, Jan. 14, 1985]

§ 270.21 Specific Part B information requirements for landfills.

Except as otherwise provided in § 264.1, owners and operators of facilities that dispose of hazardous waste in landfills must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of § 264.301. This submission must address the following items as specified in § 264.301:

(1) The liner system and leachate collection and removal system (except for an existing portion of a landfill). If an exemption from the requirements for a liner and a leachate collection and removal system is sought as provided by § 264.301(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituent into the ground water or surface water at any future time;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding facilities associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(c) If an exemption from Subpart F of Part 264 is sought, as provided by § 264.302(a), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double-liner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;

(d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of § 264.303 (a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5).

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with § 264.310(a), and a description of how each landfill will be maintained and monitored after closure in accordance with § 264.310(b). This information should be included in the closure and post-closure plans submitted under § 270.14(b)(13).

(f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of § 264.312 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how § 264.313 will be complied with;

(h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled prior to May 8, 1985, an explanation of how the requirements of § 264.314(a) will be complied with;

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of § 264.315 or § 264.316, as applicable, will be complied with.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.317. This submission must address the following items as specified in § 264.317:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985]

§§ 270.22 [Reserved]

§ 270.23 Specific Part B information requirements for miscellaneous units.

Except as otherwise provided in § 264.600, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units must provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

(1) Physical characteristics, materials of construction, and dimensions of the unit;

(2) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of §§ 264.601 and 264.602; and

(3) For disposal units, a detailed description of the plans to comply with the post-closure requirements of § 264.603.

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of § 264.601. If the applicant can demonstrate that he does not violate the environmental performance standards of § 264.601 and the Director agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Director to be necessary for evaluation of compliance of the unit with the environmental performance standards of § 264.601.

(Information collection requirements in this section have been approved by the Office of Management and Budget under control number 2050-0074)

§ 270.29 Permit denial.

The Director may, pursuant to the procedures in Part 124, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

[54 FR 9607, Mar. 7, 1989]

Subpart C—Permit Conditions

§ 270.30 Conditions applicable to all permits.

The following conditions apply to all RCRA permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

(a) *Duty to comply.* The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. (See § 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the opration of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) *Permit actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) *Property rights.* The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) *Duty to provide information.* The permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) *Inspection and entry.* The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

(j) *Monitoring and records.* (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by § 264.73(b)(9) of this chapter, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Director at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) *Signatory requirements.* All applications, reports, or information submitted to the Director shall be signed and certified (See § 270.11.)

(l) *Reporting requirements.* (1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in § 270.42, until:

(i) The permittee has submitted to the Director by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in paragraph (l)(2)(i) of this section, the permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or

revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under RCRA. (See § 270.40)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) *Twenty-four hour reporting.* (i) The permittee shall report any noncompliance which may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five day written notice requirement in favor of a written report within fifteen days.

(7) *Manifest discrepancy report:* If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the Director. (See 40 CFR 264.72.)

(8) *Unmanifested waste report:* This report must be submitted to the Director within 15 days of receipt of unmanifested waste. (See 40 CFR 264.76)

(9) *Biennial report:* A biennial report must be submitted covering facility activities during odd numbered calendar years. (See 40 CFR 264.75.)

(10) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section.

(11) *Other information.* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 48 FR 39622, Sept. 1, 1983; 50 FR 28752, July 15, 1985; 53 FR 37935, Sept. 28, 1988]

§ 270.31 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Parts 264, 266 and 267. Reporting shall be no less frequent than specified in the above regulations.

§ 270.32 Establishing permit conditions.

(a) In addition to conditions required in all permits (§ 270.30), the Director shall establish conditions, as required on a case-by-case basis, in permits under §§ 270.50 (duration of permits), 270.33(a) (schedules of compliance), 270.31 (monitoring), and for EPA issued permits only, 270.33(b) (alternate schedules of compliance) and 270.3 (considerations under Federal law).

(b)(1) Each RCRA permit shall include permit conditions necessary to achieve compliance with the Act and regulations, including each of the applicable requirements specified in Parts 264 and 266 through 268 of this chapter. In satisfying this provision, the Administrator may incorporate applicable requirements of Parts 264 and 266 through 268 of this chapter directly into the permit or establish other permit conditions that are based on these parts.

(2) Each permit issued under section 3005 of this act shall contain terms and conditions as the Administrator or State Director determines necessary to protect human health and the environment.

(c) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in § 124.86(c) for RCRA permits being processed under Subpart E or F of Part 124). Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 270.41.

(d) New or reissued permits, and to the extent allowed under § 270.41, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in this section and in 40 CFR 270.31.

(e) *Incorporation.* All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985; 51 FR 40653, Nov. 7, 1986]

§ 270.33 Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the Act and regulations.

(1) *Time for compliance.* Any schedules of compliance under this section shall require compliance as soon as possible.

(2) *Interim dates.* Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) *Reporting.* The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the

permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) *Alternative schedules of compliance.* An RCRA permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983]

Subpart D—Changes to Permit

§ 270.40 Transfer of permits.

(a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 270.40(b) or § 270.41(b)(2)) to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act.

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the Director in accordance with § 270.42. The new owner or operator must submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Director. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of 40 CFR Part 264, Subpart H (Financial Requirements) until the new owner or operator has demonstrated that he or she is complying with the requirements of that Subpart. The new owner or operator must demonstrate compliance with Subpart H requirements within six months of the date of the change of ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Subpart H, the Director shall notify the old owner or operator that he or she no longer needs to comply with Subpart H as of the date of demonstration.

[53 FR 37935, Sept. 28, 1988]

§ 270.41 Modification or revocation and reissuance of permits.

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 270.30), receives a request for revocation and reissuance under § 124.5 or conducts a review of the permit file), he or she may determine whether one or more of the causes listed in paragraphs (a) and (b) of this section for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. (See 40 CFR 124.5(c)(2).) If cause does not exist under this section, the Director shall not modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of 40 CFR 270.42. Otherwise, a draft permit must be prepared and other procedures in Part 124 (or procedures of an authorized State program) followed.

(a) *Causes for modification.* The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) *Alterations.* There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) *Information.* The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(3) *New statutory requirements or regulations.* The standards or regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued.

(4) *Compliance schedules.* The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(5) Notwithstanding any other provision in this section, when a permit for a land disposal facility is reviewed by the Director under § 270.50(d), the Director shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Parts 124, 260 through 266, and 270.

(b) *Causes for modification or revocation and reissuance.* The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under § 270.43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see § 270.30(l)(3)) of a proposed transfer of the permit.

(c) *Facility siting.* Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environmental exists which was unknown at the time of permit issuance.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 50 FR 28752, July 15, 1985; 52 FR 45799, Dec. 1, 1987; 53 FR 37936, Sept. 28, 1988]

§ 270.42 Permit modification at the request of the permittee.

(a) *Class 1 modifications.* (1) Except as provided in paragraph (a)(2) of this section, the permittee may put into effect Class 1 modifications listed in Appendix I of this section under the following conditions:

(i) The permittee must notify the Director concerning the modification by certified mail or other means that establish proof of delivery within 7 calendar days after the change is put into effect. This notice must specify the changes being made to permit conditions or supporting documents referenced by the permit and must explain why they are necessary. Along with the notice, the permittee must provide the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(ii) The permittee must send a notice of the modification to all persons on the facility mailing list, maintained by the Director in accordance with 40 CFR 124.10(c)(viii), and the appropriate units of State and local government, as specified in 40 CFR 124.10(c)(ix). This notification must be made within 90 calendar days after the change is put into effect. For the Class I modifications that require prior Director approval, the notification must be made within 90 calendar days after the Director approves the request.

(iii) Any person may request the Director to review, and the Director may for cause reject, any Class 1 modification. The Director must inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee must comply with the original permit conditions.

(2) Class 1 permit modifications identified in Appendix I by an asterisk may be made only with the prior written approval of the Director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in § 270.42(b) for Class 2 modifications instead of the Class 1 procedures. The permittee must inform the Director of this decision in the notice required in § 270.42(b)(1).

(b) *Class 2 modifications.* (1) For Class 2 modifications, listed in Appendix I of this section, the permittee must submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 2 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, in accordance with § 270.42(b)(5), and the name and address of an Agency contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting held in accordance with § 270.42(b)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Agency contact person."

(3) The permittee must place a copy of the permit modification request and supporting documents in a location ac-

cessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (b)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Agency contact identified in the public notice.

(6)(i) No later than 90 days after receipt of the notification request, the Director must:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request;

(C) Determine that the modification request must follow the procedures in § 270.42(c) for Class 3 modifications for the following reasons:

(*1*) There is significant public concern about the proposed modification; or

(*2*) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days, or

(E) Notify the permittee that he or she will decide on the request within the next 30 days.

(ii) If the Director notifies the permittee of a 30-day extension for a decision, the Director must, no later than 120 days after receipt of the modification request:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request; or

(C) Determine that the modification request must follow the procedures in § 270.42(c) for Class 3 modifications for the following reasons:

(*1*) There is significant public concern about the proposed modification; or

(*2*) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days.

(iii) If the Director fails to make one of the decisions specified in paragraph (b)(6)(ii) of this section by the 120th day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal Agency action. The authorized activities must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR Part 265. If the Director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in paragraphs (b)(6) (i), (ii), or (iii) of this section, such action cancels the temporary or automatic authorization.

(iv)(A) In the case of an automatic authorization under paragraph (b)(6)(iii) of this section, or a temporary authorization under paragraph (b)(6) (i)(D) or (ii)(D) of this section, if the Director has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee must within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(*1*) The permittee has been authorized temporarily to conduct the activities described in the permit modification request, and

(*2*) Unless the Director acts to give final approval or denial of the request by the end of the authorization period, the permittee will receive authorization to conduct such activities for the life of the permit.

(B) If the owner/operator fails to notify the public by the date specified in paragraph (b)(6)(iv)(A) of this section, the effective date of the permanent authorization will be deferred until 50 days after the owner/operator notifies the public.

(v) Except as provided in paragraph (b)(6)(vii) of this section, if the Director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under § 270.41 or § 270.42. The activities authorized under this paragraph must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR Part 265.

(vi) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the Director must consider all written comments submitted to the Agency during the public comment period and must respond in writing to all significant comments in his or her decision.

(vii) With the written consent of the permittee, the Director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(7) The Director may deny or change the terms of a Class 2 permit modification request under paragraphs (b)(6) (i) through (iii) of this section for the following reasons:

(i) The modification request is incomplete;

(ii) The requested modification does not comply with the appropriate requirements of 40 CFR Part 264 or other applicable requirements; or

(iii) The conditions of the modification fail to protect human health and the environment.

(8) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the Director establishes a later date for commencing construction and informs the permittee in writing before day 60.

(c) *Class 3 modifications.* (1) For Class 3 modifications listed in Appendix I of this section, the permittee must submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 3 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by 40 CFR 270.13 through 270.21, 270.62 and 270.63.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, and a name and address of an Agency contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with § 270.42(c)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Agency contact person."

(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after

the publication of the notice required in paragraph (c)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Agency contact identified in the notice.

(6) After the conclusion of the 60-day comment period, the Director must grant or deny the permit modification request according to the permit modification procedures of 40 CFR Part 124. In addition, the Director must consider and respond to all significant written comments received during the 60-day comment period.

(d) *Other modifications.* (1) In the case of modifications not explicitly listed in Appendix I of this section, the permittee may submit a Class 3 modification request to the Agency, or he or she may request a determination by the Director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, he or she must provide the Agency with the necessary information to support the requested classification.

(2) The Director shall make the determination described in paragraph (d)(1) of this section as promptly as practicable. In determining the appropriate class for a specific modification, the Director shall consider the similarity of the modification to other modifications codified in Appendix I and the following criteria:

(i) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do no substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Director may require prior approval.

(ii) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to,

(A) Common variations in the types and quantities of the wastes managed under the facility permit,

(B) Technological advancements, and

(C) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(iii) Class 3 modifications substantially alter the facility or its operation.

(e) *Temporary authorizations.* (1) Upon request of the permittee, the Director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations must have a term of not more than 180 days.

(2)(i) The permittee may request a temporary authorization for:

(A) Any Class 2 modification meeting the criteria in paragraph (e)(3)(ii) of this section, and

(B) Any Class 3 modification that meets the criteria in paragraph (3)(ii)(A) or (B) of this section; or that meets the criteria in paragraphs (3)(ii)(C) through (E) of this section and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(ii) The temporary authorization request must include:

(A) A description of the activities to be conducted under the temporary authorization;

(B) An explanation of why the temporary authorization is necessary; and

(C) Sufficient information to ensure compliance with 40 CFR Part 264 standards.

(iii) The permittee must send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Director and to appropriate units of State and local governments as specified in 40 CFR 124.10(c)(ix). This notification must be made within seven days of submission of the authorization request.

(3) The Director shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Director must find:

(i) The authorized activities are in compliance with the standards of 40 CFR Part 264.

(ii) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(A) To facilitate timely implementation of closure or corrective action activities;

(B) To allow treatment or storage in tanks or containers of restricted wastes in accordance with 40 CFR Part 268;

(C) To prevent disruption of ongoing waste management activities;

(D) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(E) To facilitate other changes to protect human health and the environment.

(4) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(i) The reissued temporary authorization constitutes the Director's decision on a Class 2 permit modification in accordance with paragraph (b)(6)(i)(D) or (ii)(D) of this section, or

(ii) The Director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of paragraph (c) of this section are conducted.

(f) *Public notice and appeals of permit modification decisions.* (1) The Director shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision under this section to grant or deny a Class 2 or 3 permit modification request. The Director shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under § 270.42(b)(6)(iii) or (v).

(2) The Director's decision to grant or deny a Class 2 or 3 permit modification request under this section may be appealed under the permit appeal procedures of 40 CFR 124.19.

(3) An automatic authorization that goes into effect under § 270.42(b)(6)(iii) or (v) may be appealed under the permit appeal procedures of 40 CFR 124.19; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the appeal has been granted pursuant to § 124.19(c), notwithstanding the provisions of § 124.15(b).

(g) *Newly listed or identified wastes.* (1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under 40 CFR Part 261 if he or she:

(i) Was in existence as a hazardous waste facility with respect to the newly listed or characterized waste on the effective date of the final rule listing or identifying the waste;

(ii) Submits a Class 1 modification request on or before the date on which the waste becomes subject to the new requirements;

(iii) Is in compliance with the standards of 40 CFR Part 265;

(iv) In the case of Classes 2 and 3 modifications, also submits a complete permit modification request within 180 days after the effective date of the rule listing or identifying the waste; and

(v) In the case of land disposal units, certifies that such unit is in compliance with all applicable Part 265 ground-water monitoring and financial responsibility requirements on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous. If the owner or operator fails to clarify compliance with these requirements, he or she shall lose authority to operate under this section.

(2) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

(h) *Permit modification list.* The Director must maintain a list of all approved permit modifications and must publish a notice once a year in a State-wide newspaper that an updated list is available for review.

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION

Modifications	Class
A. *General Permit Provisions*	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Director	[1] 1
b. Extension of final compliance date	3
6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director	[1] 1
7. Changes in ownership or operational control of a facility, provided the procedures of § 270.40(b) are followed	[1] 1
B. *General Facility Standards*	
1. Changes to waste sampling or analysis methods:	
a. To conform with agency guidance or regulations	1
b. Other changes	2
2. Changes to analytical quality assurance/control plan:	
a. To conform with agency guidance or regulations	1
b. Other changes	2
3. Changes in procedures for maintaining the operating record	1
4. Changes in frequency or content of inspection schedules	2
5. Changes in the training plan:	
a. That affect the type or decrease the amount of training given to employees	2
b. Other changes	1
6. Contingency plan:	
a. Changes in emergency procedures (i.e., spill or release response procedures)	2
b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed	1
c. Removal of equipment from emergency equipment list	2
d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan	1
Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the permit modification.	
C. *Ground-Water Protection*	
1. Changes to wells:	
a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground-water monitoring system	2
b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well	1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director	[1] 1
3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Director	[1] 1
4. Changes in point of compliance	[1] 2
5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs):	
a. As specified in the groundwater protection standard	3
b. As specified in the detection monitoring program	2
6. Changes to a detection monitoring program as required by § 264.98(j), unless otherwise specified in this appendix	2
7. Compliance monitoring program:	
a. Addition of compliance monitoring program as required by §§ 264.98(h)(4) and 264.99	3
b. Changes to a compliance monitoring program as required by § 264.99(k), unless otherwise specified in this appendix	2
8. Corrective action program:	
a. Addition of a corrective action program as required by §§ 264.99(i)(2) and 264.100	3
b. Changes to a corrective action program as required by § 264.100(h), unless otherwise specified in this Appendix	2
D. *Closure*	
1. Changes to the closure plan:	
a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director	[1] 1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director	[1] 1

Modifications	Class
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director	[1] 1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director	[1] 1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix	2
2. Creation of a new landfill unit as part of closure	3
3. Addition of the following new units to be used temporarily for closure activities:	
a. Surface impoundments	3
b. Incinerators	3
c. Waste piles that do not comply with § 264.250(c)	3
d. Waste piles that comply with § 264.250(c)	2
e. Tanks or containers (other than specified below)	2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the Director	[1] 1
E. *Post-Closure*	
1. Changes in name, address, or phone number of contact in post-closure plan	1
2. Extension of post-closure care period	2
3. Reduction in the post-closure care period	3
4. Changes to the expected year of final closure, where other permit conditions are not changed	1
5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure	2
F. *Containers*	
1. Modification or addition of container units:	
a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below	3
b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below	2
c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
2:	
a. Modification of a container unit without increasing the capacity of the unit	2
b. Addition of a roof to a container unit without alteration of the containment system	1
3. Storage of different wastes in containers, except as provided in (F)(4) below:	
a. That require additional or different management practices from those authorized in the permit	3
b. That do not require additional or different management practices from those authorized in the permit	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
4. Storage of treatment of different wastes in containers:	
a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 268.8(a)(2)(ii). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
G. *Tanks*	
1:	
a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in G(1)(c), G(1)(d), and G(1)(e) below	3
b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G(1)(d) and G(1)(e) below	2
c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	2
d. After prior approval of the Director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	[1] 1
e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/− 10% of the replaced tank provided	1

Modifications	Class
—The capacity difference is no more than 1500 gallons, —The facility's permitted tank capacity is not increased, and —The replacement tank meets the same conditions in the permit.	
4. Modification of a tank management practice	2
5. Management of different wastes in tanks:	
a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(c) below	3
b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in (G)(5)(d)	2
c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 268.8(a)(2)(ii). The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
H. *Surface Impoundments*	
1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity	3
2. Replacement of a surface impoundment unit	3
3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system	2
4. Modification of a surface impoundment management practice	2
5. Treatment, storage, or disposal of different wastes in surface impoundments:	
a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit	3
b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit	2
c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 269.8(a)(2)(ii), and provided that the unit meets the minimum technological requirements stated in § 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in §268.5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes	
I. *Enclosed Waste Piles*. For all waste piles except those complying with § 264.250(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with § 264.250(c).	
1. Modification or addition of waste pile units:	
a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity	3
b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity	2
2 Modification of waste pile unit without increasing the capacity of the unit	2
3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit	1
4. Modification of a waste pile management practice	2
5. Storage or treatment of different wastes in waste piles:	
a. That require additional or different management practices or different design of the unit	3
b. That do not require additional or different management practices or different design of the unit	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes	
J. *Landfills and Unenclosed Waste Piles*	
1. Modification or addition of landfill units that result in increasing the facility's disposal capacity	3
2. Replacement of a landfill	3
3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system	3
4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system	2
5. Modification of a landfill management practice	2
6. Landfill different wastes:	
a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	3
b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	2

Modifications	Class
c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in § 268.8(a)(2)(ii), and provided that the landfill unit meets the minimum technological requirements stated in § 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in §268.5(h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
K. *Land Treatment*	
1. Lateral expansion of or other modification of a land treatment unit to increase areal extent	3
2. Modification of run-on control system	2
3. Modify run-off control system	3
4. Other modifications of land treatment unit component specifications or standards required in permit	2
5. Management of different wastes in land treatment units:	
a. That require a change in permit operating conditions or unit design specifications	3
b. That do not require a change in permit operating conditions or unit design specifications	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes	
6. Modification of a land treatment unit management practice to:	
a. Increase rate or change method of waste application	3
b. Decrease rate of waste application	1
7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions	2
8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops	3
9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to § 264.278(g)(2)	3
10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements	3
11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements	2
12. Changes in background values for hazardous constituents in soil and soil-pore liquid	2
13. Changes in sampling, analysis, or statistical procedure	2
14. Changes in land treatment demonstration program prior to or during the demonstration	2
15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Director's prior approval has been received	[1] 1
16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Director	[1] 1
17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration	3
18. Changes in vegetative cover requirements for closure	2
L. *Incinerators*	
1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a waste feed rate limit, or an organic chlorine feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a waste feed limit, or an organic chlorine feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	2
3. Modification of an incinerator unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl or particulate from the combustion gases, or by changing other features of the incinerator that could affect its capability to meet the regulatory performance standards. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
4. Modification of an incinerator unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The Director may require a new trial burn to demonstrate compliance with the regulatory performance standards	2

Modifications	Class
5. Operating requirements:	
a. Modification of the limits specified in the permit for minimum combustion gas temperature, minimum combustion gas residence time, or oxygen concentration in the secondary combustion chamber. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls	3
c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit	2
6. Incineration of different wastes:	
a. If the waste contains a POHC that is more difficult to incinerate than authorized by the permit or if incineration of the waste requires compliance with different regulatory performance standards than specified in the permit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
b. If the waste does not contain a POHC that is more difficult to incinerate than authorized by the permit and if incineration of the waste does not require compliance with different regulatory performance standards than specified in the permit	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
7. Shakedown and trial burn:	
a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn	2
b. Authorization of up to an additional 720 hours of waste incineration during the shakedown period for determining operational readiness after construction, with the prior approval of the Director	[1]1
c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Director	[1]1
d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Director	[1]1
8. Substitution of an alternate type of fuel that is not specified in the permit	1

[1] Class 1 modifications requiring prior Agency approval.

[53 FR 37936, Sept. 28, 1988, as amended at 53 FR 37939, Sept. 28, 1988; 53 FR 41649, October 24, 1988; 54 FR 9607, Mar. 7, 1989]

§ 270.43 Termination of permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Director shall follow the applicable procedures in Part 124 or State procedures in terminating any permit under this section.

Subpart E—Expiration and Continuation of Permits

§ 270.50 Duration of permits.

(a) RCRA permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in § 270.51, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

(d) Each permit for a land disposal facility shall be reviewed by the Director five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in § 270.41.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985]

§ 270.51 Continuation of expiring permits.

(a) *EPA permits.* When EPA is the permit-issuing authority, the conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit (see § 124.15) if:

(1) The permittee has submitted a timely application under § 270.14 and the applicable sections in §§ 270.15 through 270.29 which is a complete (under § 270.10(c)) application for a new permit; and

(2) The Regional Administrator through no fault of the permittee, does not issue a new permit with an effective date under § 124.15 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) *Effect.* Permits continued under this section remain fully effective and enforceable.

(c) *Enforcement.* When the permittee is not in compliance with the conditions of the expiring or expired permit, the Regional Administrator may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under § 124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Part 124 with appropriate conditions; or

(4) Take other actions authorized by these regulations.

(d) *State continuation.* In a State with an hazardous waste program authorized under 40 CFR Part 271, if a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

Subpart F—Special Forms of Permits

§ 270.60 Permits by rule.

Notwithstanding any other provision of this part or Part 124, the following shall be deemed to have a RCRA permit if the conditions listed are met:

(a) *Ocean disposal barges or vessels.* The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(1) Has a permit for ocean dumping issued under 40 CFR Part 220 (Ocean Dumping, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. 1420 *et seq.*);

(2) Complies with the conditions of that permit; and

(3) Complies with the following hazardous waste regulations:

(i) 40 CFR 264.11, Identification number;

(ii) 40 CFR 264.71, Use of manifest system;

(iii) 40 CFR 264.72, Manifest discrepancies;

(iv) 40 CFR 264.73(a) and (b)(1), Operating record;

(v) 40 CFR 264.75, Biennial report; and

(vi) 40 CFR 264.76, Unmanifested waste report.

(b) *Injection wells.* The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) Has a permit for underground injection issued under Part 144 or 145; and

(2) Complies with the conditions of that permit and the requirements of § 144.14 (requirements for wells managing hazardous waste).

(3) For UIC permits issued after November 8, 1984:

(i) Complies with 40 CFR 264.101; and

(ii) Where the UIC well is the only unit at a facility which requires a RCRA permit, complies with 40 CFR 270.14(d).

(c) *Publicly owned treatment works.* The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit;

(2) Complies with the conditions of that permit; and

(3) Complies with the following regulations:

(i) 40 CFR 264.11, Identification number;

(ii) 40 CFR 264.71, Use of manifest system;

(iii) 40 CFR 264.72, Manifest discrepancies;

(iv) 40 CFR 264.73(a) and (b)(1), Operating record;

(v) 40 CFR 264.75, Biennial report;

(vi) 40 CFR 264.76, Unmanifested waste report; and

(vii) For NPDES permits issued after November 8, 1984, 40 CFR 264.101.

(4) If the waste meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

(Approved by the Office of Management and Budget under control number 2050-0007)

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985; 52 FR 45799, Dec. 1, 1987]

§ 270.61 Emergency permits.

(a) Notwithstanding any other provision of this part or Part 124, in the event the Director finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit: (1) To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste or (2) to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Director at any time without process if he or she determines that termination appropriate to protect human healt and the environment;

(5) Shall be accompanied by a publ notice published under § 124.11(b) i cluding:

(i) Name and address of the offi granting the emergency authorizatio

(ii) Name and location of the permi ted HWM facility;

(iii) A brief description of the wast involved;

(iv) A brief description of the actio authorized and reasons for authorizi it; and

(v) Duration of the emergen permit; and

(6) Shall incorporate, to the exte possible and not inconsistent with t emergency situation, all applicable r quirements of this part and 40 CF Parts 264 and 266.

[48 FR 14228, Apr. 1, 1983, as amended at FR 30114, June 30, 1983]

§ 270.62 Hazardous waste incinerator pe mits.

(a) For the purposes of determini operational readiness following co pletion of physical construction, t Director must establish permit con tions, including but not limited to lowable waste feeds and operating co ditions, in the permit to a new hazar ous waste incinerator. These perm conditions will be effective for t minimum time required to bring t incinerator to a point of operation readiness to conduct a trial burn, n to exceed 720 hours operating time f treatment of hazardous waste. The D rector may extend the duration of th operational period once, for up to 7 additional hours, at the request of t applicant when good cause is show The permit may be modified to refle the extension according to § 270.42 this chapter.

(1) Applicants must submit a stat ment, with Part B of the permit app cation, which suggests the conditio necessary to operate in complian with the performance standards § 264.343 of this chapter during t period. This statement should inclu at a minimum, restrictions on was constituents, waste feed rates and t

operating parameters identified in § 264.345 of this chapter.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of § 264.343 of this chapter based on his engineering judgment.

(b) For the purposes of determining feasibility of compliance with the performance standards of § 264.343 of this chapter and of determining adequate operating conditions under § 264.345 of this chapter, the Director must establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants must propose a trial burn plan, prepared under paragraph (b)(2) of this section with a Part B of the permit application.

(2) The trial burn plan must include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscosity (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6), or other equivalent.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," (incorporated by reference, see § 270.6), or their equivalent.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator (if available).

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system (type/feed).

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(5) of this section.

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(5) of this section.

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph.

(4) Based on the waste analysis data in the trial burn plan, the Director will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on his estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in Part 261, Subpart D, of this chapter, the hazardous waste organic constituent or constituents identified in Appendix VII of that part as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by § 264.343 of this chapter can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under § 264.345 of this chapter; and

(iv) The information sought in paragraphs (b)(5) (i) and (ii) of this section cannot reasonably be developed through other means.

(6) During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O_2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destructio
and removal efficiency (DRE), in a
cordance with the DRE formula spec
fied in § 264.343(a) of this chapter.

(v) If the HCl emission rate excee
1.8 kilograms of HCl per hour
pounds per hour), a computation
HCl removal efficiency in accordan
with § 264.343(b) of this chapter.

(vi) A computation of particula
emissions, in accordance wit
§ 264.343(c) of this chapter.

(vii) An identification of sources
fugitive emissions and their means
control.

(viii) A measurement of averag
maximum, and minimum temper
tures and combustion gas velocity.

(ix) A continuous measurement
carbon monoxide (CO) in the exhau
gas.

(x) Such other information as th
Director may specify as necessary
ensure that the trial burn will dete
mine compliance with the perform
ance standards in § 264.343 of th
chapter and to establish the operatin
conditions required by § 264.345 of th
chapter as necessary to meet that pe
formance standard.

(7) The applicant must submit to th
Director a certification that the tri
burn has been carried out in accor
ance with the approved trial bur
plan, and must submit the results
all the determinations required
paragraph (b)(6) of this section. Th
submission shall be made within
days of completion of the trial bur
or later if approved by the Director.

(8) All data collected during an
trial burn must be submitted to th
Director following the completion
the trial burn.

(9) All submissions required by th
paragraph must be certified on beha
of the applicant by the signature of
person authorized to sign a permit a
plication or a report under § 270.11.

(10) Based on the results of the tri
burn, the Director shall set the opera
ing requirements in the final perm
according to § 264.345 of this chapte
The permit modification shall procee
according to § 270.42.

(c) For the purposes of allowing o
eration of a new hazardous waste i
cinerator following completion of th
trial burn and prior to final modific

tion of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of § 264.345 of this chapter, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants must submit a statement, with Part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of § 264.343 of this chapter, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in § 264.345 of this chapter.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of § 264.343 of this chapter based on his engineering judgment.

(d) For the purpose of determining feasibility of compliance with the performance standards of § 264.343 of this chapter and of determining adequate operating conditions under § 264.345 of this chapter, the applicant for a permit for an existing hazardous waste incinerator must prepare and submit a trial burn plan and perform a trial burn in accordance with § 270.19(b) and paragraphs (b)(2) through (b)(9) of this section or, instead, submit other information as specified in § 270.19(c). Applicants submitting information under § 270.19(a) are exempt from compliance with §§ 264.343 and 264.345 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in paragraph (b)(6), with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Director to establish a later date for submission of the Part B application or the trial burn results. Trial burn results must be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with Part B of the permit application, the Director will specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

[48 FR 14228, Apr. 1, 1983, as amended at 53 FR 37939, Sept. 28, 1988; 54 FR 4288, Jan. 30, 1989]

§ 270.63 Permits for land treatment demonstrations using field test or laboratory analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of § 264.272 of this chapter, the Director may issue a treatment demonstration permit. The permit must contain only those requirements necessary to meet the standards in § 264.272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Director may issue a two-phase facility permit if he finds that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Director finds that not enough information exists upon which he can establish permit conditions to attempt to provide for compliance with all of the requirements of Subpart M, he must issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Director finds that a phased permit may be issued, he will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration clean-up activities, and any other conditions which the Director finds may be necessary under § 264.272(c). The Director will include conditions in the second phase of the facility permit to attempt to meet all Subpart M requirements pertaining to unit design, construction, operation, and maintenance. The Director will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(1) The first phase of the permit will be effective as provided in § 124.15(b) of this chapter.

(2) The second phase of the permit will be effective as provided in paragraph (d) of this section.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the Director a certification, signed by a person authorized to sign a permit application or report under § 270.11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Director approves a later date.

(d) If the Director determines that the results of the field tests or laboratory analyses meet the requirements of § 264.272 of this chapter, he will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with Part 264, Subpart M, of this chapter, based upon the results of the field tests or laboratory analyses.

(1) This permit modification may proceed under § 270.42, or otherwise will proceed as a modification under § 270.41(a)(2). If such modifications are necessary, the second phase of the permit will become effective only after those modifications have been made.

(2) If no modifications of the second phase of the permit are necessary, the Director will give notice of his final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in § 124.15(b).

[48 FR 14228, Apr. 1, 1983, as amended at 53 FR 37939, Sept. 28, 1988]

§ 270.64 Interim permits for UIC wells.

The Director may issue a permit under this part to any Class I UIC well (see § 144.6) injecting hazardous wastes within a State in which no UIC program has been approved or promulgated. Any such permit shall apply and insure compliance with all applicable requirements of 40 CFR Part 264, Subpart R (RCRA standards for wells), and shall be for a term not to exceed two years. No such permit shall be issued after approval or promulgation of a UIC program in the State. Any permit under this section shall contain a condition providing that it will terminate upon final action by the Director under a UIC program to issue or deny a UIC permit for the facility.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.65 Research, development, and demonstration permits.

(a) The Administrator may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under Part 264 or 266. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(1) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not

longer than one year unless renewed as provided in paragraph (d) of this section, and

(2) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Administrator deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(3) Shall include such requirements as the Administrator deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under this section, the Administrator may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements in Parts 124 and 270 except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures regarding public participation.

(c) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under this section may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

[50 FR 28752, July 15, 1985]

Subpart G—Interim Status

§ 270.70 Qualifying for interim status.

(a) Any person who owns or operates an "existing HWM facility" or a facility in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have an RCRA permit shall have interim status and shall be treated as having been issued a permit to the extent he or she has:

(1) Complied with the requirements of section 3010(a) of RCRA pertaining to notification of hazardous waste activity.

[*Comment*: Some existing facilities may not be required to file a notification under section 3010(a) of RCRA. These facilities may qualify for interim status by meeting paragraph (a)(2) of this section.]

(2) Complied with the requirements of § 270.10 governing submission of Part A applications;

(b) Failure to qualify for interim status. If EPA has reason to believe upon examination of a Part A application that it fails to meet the requirements of § 270.13, it shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for EPA's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part A application. If, after such notification and opportunity for response, EPA determines that the application is deficient it may take appropriate enforcement action.

(c) Paragraph (a) of this section shall not apply to any facility which has been previously denied a RCRA permit or if authority to operate the facility under RCRA has been previously terminated.

[48 FR 14228, Apr. 1, 1983, as amended at 49 FR 17718, Apr. 24, 1984; 50 FR 28753, July 15, 1985]

§ 270.71 Operation during interim status.

(a) During the interim status period the facility shall not:

(1) Treat, store, or dispose of hazardous waste not specified in Part A of the permit application;

(2) Employ processes not specified in Part A of the permit application; or

(3) Exceed the design capacities specified in Part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at 40 CFR Part 265.

§ 270.72 Changes during interim status.

(a) Except as provided in paragraph (b), the owner or operator of an interim status facility may make the following changes at the facility:

(1) Treatment, storage, or disposal of new hazardous wastes not previously identified in Part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification) if the owner or operator submits a revised Part A permit application prior to such treatment, storage, or disposal;

(2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Director approves the changes because:

(i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(3) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised Part A permit application prior to such change (along with a justification explaining the need for the change) and the Director approves the change because:

(i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(4) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator shall comply with the requirements of 40 CFR Part 265, Subpart H (Financial Requirements), until the new owner or operator has demonstrated to the Director that he is complying with the requirements of that subpart. The new owner or operator must demonstrate compliance with Subpart H requirements within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Subpart H, the Director shall notify the old owner or operator in writing that he no longer needs to comply with Subpart H as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(5) Changes made in accordance with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by an authorized State under comparable State authority, or by a court in a judicial action brought by EPA or by an authorized State. Changes under this paragraph are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(b) Except as specifically allowed under this paragraph, changes listed under paragraph (a) of this section may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(1) Changes made solely for the purposes of complying with the requirements of 40 CFR 265.193 for tanks and ancillary equipment.

(2) If necessary to comply with Federal, State, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface in-

poundments that satisfy the standards of section 3004(o).

(3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(5) Changes necessary to comply with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by an authorized State under comparable State authority, or by a court in a judicial proceeding brought by EPA or an authorized State, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Changes to treat or store, in tanks or containers, hazardous wastes subject to land disposal restrictions imposed by Part 268 or RCRA section 3004, provided that such changes are made solely for the purpose of complying with Part 268 or RCRA section 3004.

[54 FR 9608, Mar. 7, 1989]

§ 270.73 Termination of interim status.

Interim status terminates when:

(a) Final administrative disposition of a permit application is made; or

(b) Interim status is terminated as provided in § 270.10(e)(5).

(c) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, on November 8, 1985, unless:

(1) The owner or operator submits a Part B application for a permit for such facility prior to that date; and

(2) The owner or operator certifies that such facility is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(d) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit and which is granted interim status, twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(1) Submits a Part B application for a RCRA permit for such facility before the date 12 months after the date on which the facility first becomes subject to such permit requirement; and

(2) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under § 270.72(a) (1), (2) or (3), on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(f) For owners or operators of each incinerator facility on November 8, 1989, unless the owner or operator of the facility submits a Part B application for a RCRA permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility (other than a land disposal or an incinerator facility) on November 8, 1992, unless the owner or operator of the facility submits a Part B application for a RCRA permit for the facility by November 8, 1988.

(Approved by the Office of Management and Budget under control number 2050-0037)

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28753, July 15, 1985; 54 FR 9609, Mar. 7, 1989]

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

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AUTHORITY: 42 U.S.C. 6905, 6912(a), and 6926.

SOURCE: 48 FR 14248, Apr. 1, 1983, unless otherwise noted.

Subpart A—Requirements for Final Authorization

§ 271.1 Purpose and scope.

(a) This subpart specifies the procedures EPA will follow in approving, revising, and withdrawing approval of State programs and the requirements State programs must meet to be approved by the Administrator under sections 3006 (b) and (f) of RCRA.

(b) State submissions for program approval must be made in accordance with the procedures set out in this subpart.

(c) The substantive provisions which must be included in State programs for them to be approved include requirements for permitting, compliance evaluation, enforcement, public participation, and sharing of information. Many of the requirements for State programs are made applicable to States by cross-referencing other EPA regulations. In particular, many of the provisions of Parts 270 and 124 are made applicable to States by the references contained in § 271.14.

(d) Upon receipt of a complete submission, EPA will conduct a public hearing, if interest is shown, and determine whether to approve or disapprove the program taking into consideration the requirements of this subpart, the Act and any comments received.

(e) The Administrator shall approve State programs which conform to the applicable requirements of this subpart.

(f) Except as provided in § 271.3(a)(3), upon approval of a State permitting program, the Administrator shall suspend the issuance of Fed-

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eral permits for those activities subject to the approved State program.

(g) Any State program approved by the Administrator shall at all times be conducted in accordance with the requirements of this subpart.

(h) Partial State programs are not allowed for programs operating under RCRA final authorization. However, in many cases States will lack authority to regulate activities on Indian lands. This lack of authority does not impair a State's ability to obtain full program approval in accordance with this subpart, i.e., inability of a State to regulate activities on Indian lands does not constitute a partial program. EPA will administer the program on Indian lands if the State does not seek this authority.

NOTE: States are advised to contact the United States Department of the Interior, Bureau of Indian Affairs, concerning authority over Indian lands.

(i) Except as provided in § 271.4, nothing in this subpart precludes a State from:

(1) Adopting or enforcing requirements which are more stringent or more extensive than those required under this subpart;

(2) Operating a program with a greater scope of coverage than that required under this subpart. Where an approved State program has a greater scope of coverage than required by Federal law, the additional coverage is not part of the Federally approved program.

(j) Requirements and prohibitions which are applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which are imposed pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA) include any requirement or prohibition which has taken effect under HSWA, such as:

(1) All regulations specified in Table 1, and

(2) The self-implementing statutory provisions specified in Table 2 that have taken effect.

NOTE: See §§ 264.1(f)(3), 265.1(c)(4)(ii), 271.3(b), 271.21(e)(2) and 271.121(c)(3) for applicability.

TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Promulgation date	Title of regulation	Federal Register reference	Effective date
Jan. 14, 1985	Dioxin-containing wastes	50 FR 1978–2006	July 15, 1985.
Apr. 30, 1985	Paint filter liquids test	50 FR 18370–5	June 14, 1985.
July 15, 1985	Codification rule [as corrected in 51 FR 2702, 1/21/86].	50 FR 28702–55	July 15, 1985.
Oct. 23, 1985	Listing wastes from the production of dinitrotoluene, toluenediamine, and toluene diisocyanate.	50 FR 42936–43	Oct. 23, 1985.
Nov. 29, 1985	Standards for the management of the burning of specific wastes in specific types of facilities.	50 FR 49164–212	Dec. 9, 1985. Mar. 31, 1986. May 29, 1986.
Dec. 31, 1985	Amendment of spent solvent listings to include solvent mixtures [as corrected in 51 FR 19176, 5/28/86].	50 FR 53315–20	Jan. 30, 1986.
Feb. 13, 1986	Listing wastes from the production of ethylene dibromide (EDB).	51FR 5327–31	Aug. 13, 1986.
Feb. 25, 1986	Listing of four spent solvents and the still bottoms from their recovery.	51 FR 6537–42	Aug. 25, 1986.
Mar. 24, 1986	Regulations for generators of 100–1000 kg/mo of hazardous waste.	51 FR 10146–76	Sept. 22, 1986.
July 14, 1986	Hazardous Waste Tank Regulations:[1] 260.10; 262.34(a)(1); 264.110; 264.140; 264.190–264.199; 265.110; 265.140; 265.190–265.200; 270.14(b); 270.16; and 270.72 (e).	51 FR 25422–86	Jan. 12, 1987. Mar. 24, 1987.
Aug. 8, 1986	Exports of hazardous waste	51 FR 28664–86	Nov. 8, 1986.
Oct. 24, 1986	Listing Wastes from the Production and Formulation of Ethylenebisdithiocarbamic Acid (EBDC) and its Salts.	51 FR 37725	Apr. 24, 1987.
Nov. 7, 1986	Land Disposal Restrictions for solvents and dioxins	51 FR 40572	Nov. 8, 1986.
July 8, 1987	Land disposal restrictions for California list wastes	52 FR 25760	July 8, 1987.
Sept. 23, 1987	Exception Reporting for Small Quantity Generators of Hazardous Waste.	52 FR 35898	Mar. 23, 1988.
Dec. 1, 1987	Codification rule for the 1984 RCRA Amendments	52 FR 45788	Dec. 31, 1987.
Aug. 17, 1988	Land disposal restrictions for First Third wastes.	53 FR 31138–222	Aug. 8, 1988.

TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Promulgation date	Title of regulation	Federal Register reference	Effective da
June 23, 1989	Land Disposal Restrictions for Second Third wastes	54 FR 26594-652	June 8, 1989.

[1] These regulations implement HSWA only to the extent that they apply to tank systems owned or operated by sm quantity generators, establish leak detection requirements for all new underground tank systems, and establish permittin standards for underground tank systems that cannot be entered for inspection.

TABLE 2—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
Nov. 8, 1984	Delisting procedures	3001(f)	July 15, 1985, 50 FR 28702-55
Do	Waste disposal for small quantity generators prior to March 31, 1986.	3001(d)(5)	Do.
Do	Prohibition of disposal in salt domes, salt beds and underground mines and caves.	3004(b)	Do.
Do	Land disposal prohibition not applicable to contaminated soil or debris from a CERCLA response action or a RCRA corrective action prior to November 8, 1988.	3004(d)(3)	Do.
Do	Loss of interim status	3005(c)(2)(C) & (e)(2)-(3)	Do.
Do	Storage of wastes prohibited from land disposal	3004(j) & 3005(j)(11)	Do.
Do	Prohibition of waste and used oil as dust suppressant	3004(l)	Do.
Do	Minimum technological requirements for new and expanding surface impoundments, landfills and incinerators.	3004(o)	Do.
Do	Ground water monitoring	3004(p)	Do.
Do	Prohibition for burning fuels containing hazardous waste in any cement kilns.	3004(q)(2)(C)	Do.
Do	Financial responsibility for liability of guarantor when owner/operator is in bankruptcy.	3004(t)(2)-(3)	Do.
Do	Corrective action	3004(u)	Do.
Do	Review of land disposal permits every 5 years	3005(c)(3)	Do.
Do	Permit terms and conditions necessary to protect human health and the environment.	3005(c)(3)	Do.
Do	Research, development, and demonstration permits	3005(g)	Do.
Do	Interim status facilities receiving waste after July 26, 1982.	3005(i)	Do.
Do	Deadline for surface impoundment retrofit exemption application.	3005(j)(5)	Do.
Feb. 7, 1985	Fuel labeling requirements	3004(r)	Do.
May 8, 1985	Prohibition of liquids in landfills	3004(c)(1)	Do.
Do	Expansions during interim status for waste piles	3015(a)	Do.
Do	Expansions during interim status for landfills and surface impoundments.	3015(b)	Do.
Do	Interim control of hazardous waste disposed of by underground injection.	7010(a)	Do.
Aug. 5, 1985	Small quantity generator manifest requirements	3001(d)(3)	Do.
Aug. 8, 1985	Exposure assessments to accompany landfill and surface impoundment permit applications.	3019(a)	Do.
Sept. 1, 1985	Waste minimization certification on manifest	3002(b)	Do.
Do	Waste minimization permit condition	3005(h)	Do.
Nov. 8, 1985	Prohibition of non-hazardous liquids in landfills	3004(c)(3)	Do.
Do	Notification of hazardous waste export	3017(c)	Do.
Feb. 8, 1986 [1]	Notification requirements for producers, burners, blenders, distributors and marketers of waste derived fuel.	3010(a)	Nov. 29, 1985, 50 FR 49164-211.
Mar. 31, 1986 [2]	Small quantity generator requirements	3001(d)(8)	Mar. 24, 1986, 51 FR 10146-76.
Nov. 8, 1986	Land disposal prohibitions on dioxins and F001-F005 solvents.	3004(e)	Nov. 7, 1986, 51 FR 40572.
Do	Temporary granting of exclusion petitions ceases	3001(f)(2)(B)	
Do	Export of hazardous waste	3017(a)	Aug. 8, 1986, 51 FR 28664-86.
July 8, 1987	Land disposal restrictions for California list wastes	3004(d)	July 8, 1987, 52 FR 25760.

TABLE 2—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
Sept. 23, 1987	Exception reporting for small quantity generators of hazardous waste.	52 FR 35899	Mar. 23, 1988.
Aug. 8, 1988	Prohibition on California wastes, dioxins, and solvents in deep injection wells.	3004(f)(3)	
Do	Land disposal restrictions of ⅓ of listed wastes	3004(g)(6)(A)	Aug. 17, 1988, 53 FR 31138–222.
Nov. 8, 1988	Prohibition on wastes in existing surface impoundments unless double lined.	3005(j)	
June 8, 1989	Prohibition on land disposal of ⅔ of listed wastes	3004(g)(6)(B)	June 23, 1989, 54 FR 26594–652.
May 8, 1990	Prohibition on land disposal of all listed wastes	3004(g)(6)(C)	

[1] Note that the effective date was changed to Jan. 29, 1986 by the Nov. 29, 1985 rule.

[2] Note that the effective date was changed to Sept. 22, 1986 by the Mar. 24, 1986 rule.

[48 FR 14248, Apr. 1, 1983]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 271.1, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 271.2 Definitions.

The definitions in Part 270 apply to all subparts of this part.

§ 271.3 Availability of final authorization.

(a) Where a State program meets the requirements of section 3006 of RCRA and this subpart it may receive authorization for any provision of its program corresponding to a Federal provision in effect on the date of the State's authorization.

(b) States approved under this subpart are authorized to administer and enforce their hazardous waste program in lieu of the Federal program, except as provided below:

(1) Any requirement or prohibition which is applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which is imposed pursuant to the Hazardous and Solid Waste Amendments of 1984 takes effect in each State having a finally authorized State program on the same date as such requirement takes effect in other States. These requirements and prohibitions are identified in § 271.1(j).

(2) The requirements and prohibitions in § 271.1(j) supersede any less stringent provision of a State program. The Administrator is authorized to carry out each such Federal requirement and prohibition in an authorized State except where, pursuant to section 3006(b) or 3006(g)(2) of RCRA, the State has received final or interim authorization to carry out the particular requirement or prohibition. Violations of Federal requirements and prohibitions effective in authorized States are enforceable under sections 3008, 3013 and 7003 of RCRA.

(3) Until an authorized State program is revised to reflect the amendments made by the Hazardous and Solid Waste Amendments of 1984 and such program revisions receive final or interim authorization pursuant to section 3006(b) or 3006(g)(2) of RCRA, the Administrator shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984.

(c)(1) States may apply for final authorization at any time after the promulgation of the last component of Phase II.

(2) State programs under final authorization shall not take effect until the effective date of the last component of Phase II.

(d) State operating under interim authorization may apply for and receive final authorization as specified in paragraph (c) of this section. Notwithstanding approval under Subpart

B such States must meet all the requirements of this subpart in order to qualify for final authorization.

(e) States need not have been approved under Subpart B in order to qualify for final authorization.

(f) Official State applications for final authorization may be reviewed on the basis of Federal self-implementing statutory provisions that were in effect 12 months prior to the State's submission of its official application (if no implementing regulations have previously been promulgated) and the regulations in 40 CFR Parts 124, 260-266, 268, 270 and 271 that were in effect 12 months prior to the State's submission of its official application. To meet this requirement the State may demonstrate that its program qualifies for final authorization pursuant to this subpart or interim authorization under § 271.24. States are not precluded from seeking authorization for requirements taking effect less than 12 months prior to the State's submittal of its final application.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28753, July 15, 1985; 51 FR 33721, Sept. 22, 1986]

§ 271.4 Consistency.

To obtain approval, a State program must be consistent with the Federal program and State programs applicable in other States and in particular must comply with the provisions below. For purposes of this section the phrase "State programs applicable in other States" refers only to those State hazardous waste programs which have received final authorization under this part.

(a) Any aspect of the State program which unreasonably restricts, impedes, or operates as a ban on the free movement across the State border of hazardous wastes from or to other States for treatment, storage, or disposal at facilities authorized to operate under the Federal or an approved State program shall be deemed inconsistent.

(b) Any aspect of State law or of the State program which has no basis in human health or environmental protection and which acts as a prohibition on the treatment, storage or disposal of hazardous waste in the State may be deemed inconsistent.

(c) If the State manifest system does not meet the requirements of this part, the State program shall be deemed inconsistent.

[48 FR 14248, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 271.5 Elements of a program submission.

(a) Any State that seeks to administer a program under this part shall submit to the Administrator at least three copies of a program submission. The submission shall contain the following:

(1) A letter from the Governor of the State requesting program approval;

(2) A complete program description as required by § 271.6 describing how the State intends to carry out its responsibilities under this subpart;

(3) An Attorney General's statement as required by § 271.7;

(4) A Memorandum of Agreement with the Regional Administrator as required by § 271.8;

(5) Copies of all applicable State statutes and regulations, including those governing State administrative procedures; and

(6) The showing required by § 271.20(c) of the State's public participation activities prior to program submission.

(b) Within 30 days of receipt by EPA of a State program submission, EPA will notify the State whether its submission is complete. If EPA finds that a State's submission is complete, the statutory review period (i.e., the period of time allotted for formal EPA review of a proposed State program under section 3006(b) of the Act) shall be deemed to have begun on the date of receipt of the State's submission. If EPA finds that a State's submission is incomplete, the review period shall not begin until all necessary information is received by EPA.

(c) If the State's submission is materially changed during the review period, the review period shall begin again upon receipt of the revised submission.

(d) The State and EPA may extend the review period by agreement.

§ 271.6 Program description.

Any State that seeks to administer a program under this subpart shall submit a description of the program it proposes to administer in lieu of the Federal program under State law or under an interstate compact. The program description shall include:

(a) A description in narrative form of the scope, structure, coverage and processes of the State program.

(b) A description (including organization charts) of the organization and structure of the State agency or agencies which will have responsibility for administering the program, including the information listed below. If more than one agency is responsible for administration of a program, each agency must have statewide jurisdiction over a class of activities. The responsibilities of each agency must be delineated, their procedures for coordination set forth, and an agency must be designated as a "lead agency" to facilitate communications between EPA and the State agencies having program responsibilities. When the State proposes to administer a program of greater scope of coverage than is required by Federal law, the information provided under this paragraph shall indicate the resources dedicated to administering the Federally required portion of the program.

(1) A description of the State agency staff who will carry out the State program, including the number, occupations, and general duties of the employees. The State need not submit complete job descriptions for every employee carrying out the State program.

(2) An itemization of the estimated costs of establishing and administering the program, including cost of the personnel listed in paragraph (b)(1) of this section, cost of administrative support, and cost of technical support. This estimate must cover the first two years after program approval.

(3) An itemization of the sources and amounts of funding, including an estimate of Federal grant money, available to the State Director to meet the costs listed in paragraph (b)(2) of this section, identifying any restrictions or limitations upon this funding. This estimate must cover the first two years after program approval.

(c) A description of applicable State procedures, including permitting procedures and any State administrative or judicial review procedures.

(d) Copies of the permit form(s), application form(s), and reporting form(s) the State intends to employ in its program. Forms used by the State for hazardous waste management need not be identical to the forms used by EPA but should require the same basic information, except that the State RCRA program must require the use of EPA Manifest Forms 8700-22 and 8700-22A. Where the State preprints information on the Manifest forms, such forms must be submitted with the State's application for approval. Restrictions on preprinting by the States are identified in 40 CFR 271.10(h). Otherwise, the State need not provide copies of uniform national forms it intends to use but should note its intention to use such forms.

(e) A complete description of the State's compliance tracking and enforcement program.

(f) A description of the State manifest tracking system, and of the procedures the State will use to coordinate information with other approved State programs and the Federal program regarding interstate and international shipments.

(g) An estimate of the number of the following:

(1) Generators;

(2) Transporters; and

(3) On- and off-site storage, treatment and disposal facilities, and a brief description of the types of facilities and an indication of the permit status of these facilities.

(h) If available, an estimate of the annual quantities of hazardous wastes generated within the State; transported into and out of the State; and stored, treated, or disposed of within the State: On-site; and Off-site.

[48 FR 14248, Apr. 1, 1983, as amended at 49 FR 10506, Mar. 20, 1984]

§ 271.7 Attorney General's statement.

(a) Any State that seeks to administer a program under this subpart shall submit a statement from the State Attorney General (or the attorney for those State agencies which have independent legal counsel) that the laws of the State provide adequate authority to carry out the program described under § 271.6 and to meet the requirements of this subpart. This statement shall include citations to the specific statutes, administrative regulations and, where appropriate, judicial decisions which demonstrate adequate authority. State statutes and regulations cited by the State Attorney General or independent legal counsel shall be in the form of lawfully adopted State statues and regulations at the time the statement is signed and shall be fully effective by the time the program is approved. To qualify as "independent legal counsel" the attorney signing the statement required by this section must have full authority to independently represent the State agency in court on all matters pertaining to the State program.

NOTE: EPA will supply States with an Attorney General's statement format on request.

(b) When a State seeks authority over activities on Indian lands, the statement shall contain an appropriate analysis of the State's authority.

§ 271.8 Memorandum of Agreement with the Regional Administrator.

(a) Any State that seeks to administer a program under this subpart shall submit a Memorandum of Agreement (MOA). The Memorandum of Agreement shall be executed by the State Director and the Regional Administrator and shall become effective when approved by the Administrator. In addition to meeting the requirements of paragraph (b) of this section, the Memorandum of Agreement may include other terms, conditions, or agreements consistent with this subpart and relevant to the administration and enforcement of the State's regulatory program. The Administrator shall not approve any Memorandum of Agreement which contains provisions which restrict EPA's statutory oversight responsibility.

(b) All Memoranda of Agreement shall include the following:

(1) Provisions for the Regional Administrator to promptly forward to the State Director information obtained prior to program approval in notifications provided under section 3010(a) of RCRA. The Regional Administrator and the State Director shall agree on procedures for the assignment of EPA identification numbers for new generators, transporters, treatment, storage, and disposal facilities.

(2) Provisions specifying the frequency and content of reports, documents and other information which the State is required to submit to EPA. The State shall allow EPA to routinely review State records, reports, and files relevant to the administration and enforcement of the approved program. State reports may be combined with grant reports where appropriate.

(3) Provisions on the State's compliance monitoring and enforcement program, including:

(i) Provisions for coordination of compliance monitoring activities by the State and by EPA. These may specify the basis on which the Regional Administrator will select facilities or activities within the State for EPA inspection. The Regional Administrator will normally notify the State at least 7 days before any such inspection; and

(ii) Procedures to assure coordination of enforcement activities.

(4) Provisions allowing EPA to conduct compliance inspections of all generators, transporters, and HWM facilities in each year for which the State is operating under final authorization. The Regional Administrator and the State Director may agree to limitations on compliance inspections of generators, transporters, and non-major HWM facilities.

(5) No limitations on EPA compliance inspections of generators, transporters, or non-major HWM facilities under paragraph (b)(4) of this section shall restrict EPA's right to inspect any generator, transporter, or HWM facility which it has cause to believe is not in compliance with RCRA; howev-

er, before conducting such an inspection, EPA will normally allow the State a reasonable opportunity to conduct a compliance evaluation inspection.

(6) Provisions for the prompt transfer from EPA to the State of pending permit applications and any other information relevant to program operation not already in the possession of the State Director (e.g., support files for permit issuance, compliance reports, etc.). When existing permits are transferred from EPA to the State for administration, the Memorandum of Agreement shall contain provisions specifying a procedure for transferring the administration of these permits. If a State lacks the authority to directly administer permits issued by the Federal government, a procedure may be established to transfer responsibility for these permits.

NOTE: For example, EPA and the State and the permittee could agree that the State would issue a permit(s) identical to the outstanding Federal permit which would simultaneously be terminated.

(7) Provisions specifying classes and categories of permit applications, draft permits, and proposed permits that the State will send to the Regional Administrator for review, comment and, where applicable, objection.

(8) When appropriate, provisions for joint processing of permits by the State and EPA, for facilities or activities which require permits from both EPA and the State under different programs. See § 124.4

NOTE: To promote efficiency and to avoid duplication and inconsistency, States are encouraged to enter into joint processing agreements with EPA for permit issuance.

(9) Provisions for the State Director to promptly forward to EPA copies of draft permits and permit applications for all major HWM facilities for review and comment. The Regional Administrator and the State Director may agree to limitations regarding review of and comment on draft permits and/or permit applications for non-major HWM facilities. The State Director shall supply EPA copies of final permits for all major HWM facilities.

(10) Provisions for the State Director to review all permits issued under State law prior to the date of program approval and modify or revoke and reissue them to require compliance with the requirements of this subpart. The Regional Administrator and the State Director shall establish a time within which this review must take place.

(11) Provisions for modification of the Memorandum of Agreement in accordance with this subpart.

(c) The Memorandum of Agreement, the annual program grant and the State/EPA Agreement should be consistent. If the State/EPA Agreement indicates that a change is needed in the Memorandum of Agreement, the Memorandum of Agreement may be amended through the procedures set forth in this subpart. The State/EPA Agreement may not override the Memorandum of Agreement.

NOTE: Detailed program priorities and specific arrangements for EPA support of the State program will change and are therefore more appropriately negotiated in the context of annual agreements rather than in the MOA. However, it may still be appropriate to specify in the MOA the basis for such detailed agreements, e.g., a provision in the MOA specifying that EPA will select facilities in the State for inspection annually as part of the State/EPA agreement.

§ 271.9 Requirements for identification and listing of hazardous wastes.

(a) The State program must control all the hazardous wastes controlled under 40 CFR Part 261 and must adopt a list of hazardous wastes and set of characteristics for identifying hazardous wastes equivalent to those under 40 CFR Part 261.

(b) The State is not required to have a delisting mechanism. A State may receive authorization for delisting if the State regulations for delisting decisions are equivalent to § 260.20(b) and § 260.22, and the State provides public notice and opportunity for comment before granting or denying delisting requests.

[51 FR 33721, Sept. 22, 1986]

§ 271.10 Requirements for generators of hazardous wastes.

(a) The State program must cover all generators covered by 40 CFR Part 262. States must require new generators to contact the State and obtain an EPA identicfiation number before they perform any activity subject to regulation under the approved State hazardous waste program.

(b) The State shall have authority to require and shall require all generators to comply with reporting and recordkeeping requirements equivalent to those under 40 CFR 262.40 and 262.41. States must require that generators keep these records at least 3 years.

(c) The State program must require that generators who accumulate hazardous wastes for short periods of time comply with requirements that are equivalent to the requirements for accumulating hazardous wastes for short periods of time under 40 CFR 262.34.

(d) The State program must require that generators comply with requirements that are equivalent to the requirements for the packaging, labeling, marking, and placarding of hazardous waste under 40 CFR 262.30 to 262.33, and are consistent with relevant DOT regulations under 49 CFR Parts 172, 173, 178 and 179.

(e) The State program shall provide requirements respecting international shipments which are equivalent to those at 40 CFR Part 262 Subparts E and F, except that:

(1) Advance notification, annual reports and exception reports in accordance with 40 CFR 262.53, 262.55 and 262.56 shall be filed with the Administrator; States may require that copies of the documents referenced also be filed with the State Director; and

(2) The Administrator will notify foreign countries of intended exports in conjunction with the Department of State and primary exporters of foreign countries' responses in accordance with 40 CFR 262.53.

NOTE: Such notices shall be mailed to Hazardous Waste Export, Office of International Activities (A-106), U.S. Environmental Protection Agency, Washington DC 20460.

(f) The State must require that all generators of hazardous waste who transport (or offer for transport) such hazardous waste off-site:

(1) Use a manifest system that ensures that interstate and intrastate shipments of hazardous waste are designated for delivery, and, in the case of intrastate shipments, are delivered to facilities that are authorized to operate under an approved State program or the federal program. The manifest system must include the use of manifest form as required by § 262.20(a) and § 262.21. No other manifest form, shipping document, or information, other than that required by federal law, may be required by the State to travel with the shipment.

(2) Initiate the manifest and designate on the manifest the storage, treatment, or disposal facility to which the waste is to be shipped;

(3) Ensure that all wastes offered for transportation are accompanied by the manifest, except in the case of shipments by rail or water specified in 40 CFR 262.23 (c) and (d) and § 262.20 (e) and (f). The State program shall provide requirements for shipments by rail or water equivalent to those under 40 CFR 262.23 (c) and (d) and § 263.20 (e) and (f).

(4) Investigate instances where manifests have not been returned by the owner or operator of the designated facility and report such instances to the State in which the shipment originated.

(g) In the case of interstate shipments for which the manifest has not been returned, the State program must provide for notification to the State in which the facility designated on the manifest is located and to the State in which the shipment may have been delivered (or to EPA in the case of unauthorized States).

(h) The State must follow the Federal manifest format (40 CFR 262.21) and may supplement the format to a limited extent subject to the consistency requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 *et seq.*).

(1) A State that supplies the manifest form required by § 262.20(a) may preprint information on the form only as follows:

(i) In Items A and L, a State manifest document number; (EPA Form

8700-22, items A; EPA Form 8700-22A, item L);

(ii) In Items 11 and 28, a hazardous materials (HM) column for use in distinguishing between federally regulated wastes and other materials according to 49 CFR 172.201(a)(1);

(iii) Anywhere on the form, light organizational marks to indicate proper placement of characters or to facilitate data entry;

(iv) Anywhere in the margin of the form or on the back of the form, any information or instructions that do not require generators, transporters, or owners or operators of hazardous waste management facilities to supply additional information;

(v) In Item 16, reference to State laws or regulations following the federal certification; and

(vi) Abbreviations for headings in State optional information spaces (EPA Form 8700-22, Items A-H; and EPA Form 8700-22A, Items L-Q).

(2) In addition to the federally required information, both the State in which the generator is located and the State in which the designated facility is located may require completion of the following items:

(i) State manifest document number (EPA Form 8700-22, Item A; EPA Form 8700-22A Item L);

(ii) For generators, State generator identification numbers (EPA Form 8700-22, Item B; EPA Form 8700-22A, Item M);

(iii) For transporters, telephone numbers and State transporter identification numbers (EPA Form 8700-22, Items C, D, E and F; EPA Form 8700-22A, Items N, O, P and Q);

(iv) For owners and operators of hazardous waste management facilities, facility telephone number, and State facility identification numbers (EPA Form 8700-22, Items G and H);

(v) Codes associated with particular wastes (EPA Form 8700-22, Item I; EPA Form 8700-22A, Item R);

(vi) Codes associated with particular waste treatment, storage, or disposal methods (EPA Form 8700-22, Item K; EPA Form 8700-22A, Item T); and

(vii) Additional waste description associated with particular hazardous wastes listed on the Manifest. This information is limited to information such as chemical names, constituent percentages, and physical state (EPA Form 8700-22, Item J; EPA Form 8700-22A, Item S).

(3) No State, however, may impose enforcement sanctions on a transporter during transportation of the shipment for failure of the form to include preprinted information or optional State information items.

(i) Unless otherwise provided in Part 271, the State program shall have standards for generators which are at least as stringent as any amendment to 40 CFR Part 262 which is promulgated after July 1, 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 49 FR 10506, Mar. 20, 1984; 49 FR 11180, Mar. 26, 1984; 51 FR 28685, Aug. 8, 1986; 51 FR 33722, Sept. 22, 1986]

§ 271.11 Requirements for transporters of hazardous wastes.

(a) The State program must cover all transporters covered by 40 CFR Part 263. New transporters must be required to contact the State and obtain an EPA identification number from the State before they accept hazardous waste for transport.

(b) The State shall have the authority to require and shall require all transporters to comply with recordkeeping requirements equivalent to those found at 40 CFR 263.22. States must require that records be kept at least 3 years.

(c) The State must require the transporter to carry the manifest during transport, except in the case of shipments by rail or water specified in 40 CFR 263.20 (e) and (f) and to deliver waste only to the facility designated on the manifest. The State program shall provide requirements for shipments by rail or water equivalent to those under 40 CFR 263.20 (e) and (f). For exports of hazardous waste, the State must require the transporter to refuse to accept hazardous waste for export if he knows the shipment does not conform to the EPA Acknowledgment of Consent, to carry an EPA Acknowledgment of Consent to the shipment, and to provide a copy of the manifest to the U.S. Customs official at the point the waste leaves the United States.

(d) For hazardous wastes that are discharged in transit, the State program must require that transporters notify appropriate State, local, and Federal agencies of such discharges, and clean up such wastes, or take action so that such wastes do not present a hazard to human health or the environment. These requirements shall be equivalent to those found at 40 CFR 263.30 and 263.31.

(e) Unless otherwise provided in Part 271, the State program shall have standards for transporters which are at least as stringent as any amendment to 40 CFR Part 263 which is promulgated after July 1, 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 28686, Aug. 8, 1986; 51 FR 33722, Sept. 22, 1986]

§ 271.12 Requirements for hazardous waste management facilities.

The State shall have standards for hazardous waste management facilities which are equivalent to 40 CFR Parts 264 and 266. These standards shall include:

(a) Technical standards for tanks, containers, waste piles, incineration, chemical, physical and biological treatment facilities, surface impoundments, landfills, and land treatment facilities;

(b) Financial responsibility during facility operation;

(c) Preparedness for and prevention of discharges or releases of hazardous waste; contingency plans and emergency procedures to be followed in the event of a discharge or release of hazardous waste;

(d) Closure and post-closure requirements including financial requirements to ensure that money will be available for closure and post-closure monitoring and maintenance;

(e) Groundwater monitoring;

(f) Security to prevent unauthorized access to the facility;

(g) Facility personnel training;

(h) Inspections, monitoring, recordkeeping, and reporting;

(i) Compliance with the manifest system, including the requirements that facility owners or operators return a signed copy of the manifest to the generator to certify delivery of the hazardous waste shipment;

(j) Other requirements to the extent that they are included in 40 CFR Parts 264 and 266.

§ 271.13 Requirements with respect to permits and permit applications.

(a) State law must require permits for owners and operators of all hazardous waste management facilities required to obtain a permit under 40 CFR Part 270 and prohibit the operation of any hazardous waste management facility without such a permit, except that States may, if adequate legal authority exists, authorize owners and operators of any facility which would qualify for interim status under the Federal program to remain in operation until a final decision is made on the permit application, or until interim status terminates pursuant to 40 CFR 270.73(b) through (f). When State law authorizes such continued operation it shall require compliance by owners and operators of such facilities with standards at least as stringent as EPA's interim status standards at 40 CFR Part 265.

(b) The State must require all new HWM facilities to contact the State and obtain an EPA identification number before commencing treatment, storage, or disposal of hazardous waste.

(c) All permits issued by the State shall require compliance with the standards adopted by the State under § 271.12.

(d) All permits issued under State law prior to the date of approval of final authorization shall be reviewed by the State Director and modified or revoked and reissued to require compliance with the requirements of this part.

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 33722, Sept. 22, 1986]

§ 271.14 Requirements for permitting.

All State programs under this subpart must have legal authority to implement each of the following provisions and must be administered in conformance with each; except that States are not precluded from omitting or modifying any provisions to impose more stringent requirements:

(a) Section 270.1(c)(1)—(Specific inclusions);

(b) Section 270.4—(Effect of permit);

(c) Section 270.5—(Noncompliance reporting);

(d) Section 270.10—(Application for a permit);

(e) Section 270.11—(Signatories);

(f) Section 270.12—(Confidential information);

(g) Section 270.13—(Contents of Part A);

(h) Sections 270.14 through 270.29—(Contents of Part B);

Note: States need not use a two part permit application process. The State application process must, however, require information in sufficient detail to satisfy the requirements of §§ 270.13 through 270.29.

(i) Section 270.30—(Applicable permit conditions);

(j) Section 270.31—(Monitoring requirements);

(k) Section 270.32—(Establishing permit conditions);

(l) Section 270.33—(Schedule of compliance);

(m) Section 270.40—(Permit transfer);

(n) Section 270.41—(Permit modification);

(o) Section 270.43—(Permit termination);

(p) Section 270.50—(Duration);

(q) Section 270.60—(Permit by rule);

(r) Section 270.61—(Emergency permits);

(s) Section 270.64—(Interim permits for UIC wells);

(t) Section 124.3(a)—(Application for a permit);

(u) Section 124.5 (a), (c), (d)—(Modification of permits);

(v) Section 124.6 (a), (d), and (e)—(Draft permit);

(w) Section 124.8—(Fact sheets);

(x) Section 124.10 (a)(1)(ii), (a)(1)(iii), (a)(1)(v), (b), (c), (d), and (e)—(Public notice);

(y) Section 124.11—(Public comments and requests for hearings);

(z) Section 124.12(a)—(Public hearings); and

(aa) Section 124.17 (a) and (c)—(Response to comments).

Note: States need not implement provisions identical to the above listed provisions. Implemented provisions must, however, establish requirements at least as stringent as the corresponding listed provisions. While States may impose more stringent requirements, they may not make one requirement more lenient as a tradeoff for making another requirement more stringent; for example, by requiring that public hearings be held prior to issuing any permit while reducing the amount of advance notice of such a hearing.

[48 FR 14248, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 271.15 Requirements for compliance evaluation programs.

(a) State programs shall have procedures for receipt, evaluation, retention and investigation for possible enforcement of all notices and reports required of permittees and other regulated persons (and for investigation for possible enforcement of failure to submit these notices and reports).

(b) State programs shall have inspection and surveillance procedures to determine, independent of information supplied by regulated persons, compliance or noncompliance with applicable program requirements. The State shall maintain:

(1) A program which is capable of making comprehensive surveys of all facilities and activities subject to the State Director's authority to identify persons subject to regulation who have failed to comply with permit application or other program requirements. Any compilation, index, or inventory of such facilities and activities shall be made available to the Regional Administrator upon request;

(2) A program for periodic inspections of the facilities and activities subject to regulation. These inspections shall be conducted in a manner designed to:

(i) Determine compliance or noncompliance with issued permit conditions and other program requirements;

(ii) Verify the accuracy of information submitted by permittees and other regulated persons in reporting forms and other forms supplying monitoring data; and

(iii) Verify the adequacy of sampling, monitoring, and other methods used by permittees and other regulated persons to develop that information;

(3) A program for investigating information obtained regarding violations of applicable program and permit requirements; and

(4) Procedures for receiving and ensuring proper consideration of information submitted by the public about violations. Public effort in reporting violations shall be encouraged, and the State Director shall make available information on reporting procedures.

(c) The State Director and State officers engaged in compliance evaluation shall have authority to enter any site or premises subject to regulation or in which records relevant to program operation are kept in order to copy any records, inspect, monitor or otherwise investigate compliance with the State program including compliance with permit conditions and other program requirements. States whose law requires a search warrant before entry conform with this requirement.

(d) Investigatory inspections shall be conducted, samples shall be taken and other information shall be gathered in a manner (e.g., using proper "chain of custody" procedures) that will produce evidence admissible in an enforcement proceeding or in court.

§ 271.16 Requirements for enforcement authority.

(a) Any State agency administering a program shall have available the following remedies for violations of State program requirements:

(1) To restrain immediately and effectively any person by order or by suit in State court from engaging in any unauthorized activity which is endangering or causing damage to public health or the environment.

NOTE: This paragraph requires that States have a mechanism (e.g., an administrative cease and desist order or the ability to seek a temporary restraining order) to stop any unauthorized activity endangering public health or the environment.

(2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement, including permit conditions, without the necessity of a prior revocation of the permit;

(3) To access or sue to recover in court civil penalties and to seek criminal remedies, including fines, as follows:

(i) Civil penalties shall be recoverable for any program violation in at least the amount of $10,000 per day.

(ii) Criminal remedies shall be obtainable against any person who knowingly transports any hazardous waste to an unpermitted facility; who treats, stores, or disposes of hazardous waste without a permit; or who makes any false statement, or representation in any application, label, manifest, record, report, permit or other document filed, maintained, or used for purposes of program compliance. Criminal fines shall be recoverable in at least the amount of $10,000 per day for each violation, and imprisonment for at least six months shall be available.

(b)(1) The maximum civil penalty or criminal fines (as provided in paragraph (a)(3) of this section) shall be assessable for each instance of violation and, if the violation is continuous, shall be assessable up to the maximum amount for each day of violation.

(2) The burden of proof and degree of knowledge or intent required under State law for establishing violations under paragraph (a)(3) of this section, shall be no greater than the burden of proof or degree of knowledge or intent EPA must provide when it brings an action under the Act.

NOTE: For example, this requirement is not met if State law includes mental state as an element of proof for civil violations.

(c) A civil penalty assessed, sought, or agreed upon by the State Director under paragraph (a)(3) of this section shall be appropriate to the violation.

NOTE: To the extent the State judgments or settlements provide penalties in amounts which EPA believes to be substantially inadequate in comparison to the amounts which EPA would require under similar facts, EPA, when authorized by the applicable statute, may commence separate actions for penalties.

In addition to the requirements of this paragraph, the State may have other enforcement remedies. The following enforcement options, while not mandatory, are highly recommended:

Procedures for assessment by the State of the costs of investigations, inspections, or monitoring surveys which lead to the establishment of violations;

Procedures which enable the State to assess or to sue any persons responsible for unauthorized activities for any expenses incurred by the State in removing, correcting, or terminating any adverse effects upon human health and the environment resulting from the unauthorized activity, whether or not accidental;

Procedures which enable the State to sue for compensation for any loss or destruction of wildlife, fish or aquatic life, or their habitat, and for any other damages caused by unauthorized activity, either to the State or to any residents of the State who are directly aggrieved by the unauthorized activity, or both; and

Procedures for the administrative assessment of penalties by the Director.

(d) Any State administering a program under this subpart shall provide for public participation in the State enforcement process by providing either:

(1) Authority which allows intervention as of right in any civil action to obtain the remedies specified in paragraph (a) (2) or (3) of this section by any citizen having an interest which is or may be adversely affected; or

(2)(i) Assurance by the appropriate State agency that it will investigate and provide written responses to all citizen complaints submitted pursuant to the procedures specified in § 271.15(b)(4);

(ii) Assurance by the appropriate State enforcement authority that it will not oppose intervention by any citizen when permissive intervention is authorized by statute, rule, or regulation; and

(iii) Assurance by the appropriate State enforcement authority that it will publish notice of and provide at least 30 days for public comment on all proposed settlements of civil enforcement actions, except in cases where a settlement requires some immediate action (e.g., cleanup) which if otherwise delayed could result in substantial damage to either public health or the environment.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.); secs. 1006, 2002(a), 3006 and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (42 U.S.C. 6905, 6912(a), 6926 and 6974))

[48 FR 14248, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983; 49 FR 7372, Feb. 29, 1984]

§ 271.17 Sharing of information.

(a) Any information obtained or used in the administration of a State program shall be available to EPA upon request without restriction. If the information has been submitted to the State under a claim of confidentiality, the State must submit that claim to EPA when providing information under this subpart. Any information obtained from a State and subject to a claim of confidentiality will be treated in accordance with the regulations in 40 CFR Part 2. If EPA obtains from a State information that is not claimed to be confidential, EPA may make that information available to the public without further notice.

(b) EPA shall furnish to States with approved programs the information in its files not submitted under a claim of confidentiality which the State needs to implement its approved program. EPA shall furnish to States with approved programs information submitted to EPA under a claim of confidentiality, which the State needs to implement its approved program, subject to the conditions in 40 CFR Part 2.

(c) (1) The State program must provide for the public availability of information obtained by the State regarding facilities and sites for the treatment, storage, and disposal of hazardous waste. Such information must be made available to the public in substantially the same manner, and to the same degree, as would be the case if the Administrator was carrying out the provisions of Subtitle C of RCRA in the State.

(2) A State must revise its program to comply with this section in accordance with § 271.21(e)(2)(ii). Interim authorization under § 271.24 is not available to demonstrate compliance with this section.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28754, July 15, 1985; 51 FR 33722, Sept. 22, 1986]

§ 271.18 Coordination with other programs.

(a) Issuance of State permits under this subpart may be coordinated, as provided in Part 124, with issuance of UIC, NPDES, and 404 permits whether they are controlled by the State, EPA, or the Corps of Engineers. See § 124.4.

(b) The State Director of any approved program which may affect the planning for and development of hazardous waste management facilities and practices shall consult and coordinate with agencies designated under section 4006(b) of RCRA (40 CFR Part 255) as responsible for the development and implementation of State solid waste management plans under section 4002(b) of RCRA (40 CFR Part 256).

§ 271.19 EPA review of State permits.

(a) The Regional Administrator may comment on permit applications and draft permits as provided in the Memorandum of Agreement under § 271.8.

(b) Where EPA indicates, in a comment, that issuance of the permit would be inconsistent with the approved State program, EPA shall include in the comment:

(1) A statement of the reasons for the comment (including the section of RCRA or regulations promulgated thereunder that support the comment); and

(2) The actions that should be taken by the State Director in order to address the comments (including the conditions which the permit would include if it were issued by the Regional Administrator).

(c) A copy of any comment shall be sent to the permit applicant by the Regional Administrator.

(d) The Regional Administrator shall withdraw such a comment when satisfied that the State has met or refuted his or her concerns.

(e) Under section 3008(a)(3) of RCRA, EPA may terminate a State-issued permit in accordance with the procedures of Part 124, Subpart E, or bring an enforcement action in accordance with the procedures of 40 CFR Part 22 in the case of a violation of a State program requirement. In exercising these authorities, EPA will observe the following conditions:

(1) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the ground that the permittee is not complying with a condition of that permit.

(2) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the ground that the permittee is not complying with a condition that the Regional Administrator in commenting on the permit application or draft permit stated was necessary to implement approved State program requirements, whether or not that condition was included in the final permit.

(3) The Regional Administrator may not take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit on the ground that the permittee is not complying with a condition necessary to implement approved State program requirements unless the Regional Administrator stated in commenting on the permit application or draft permit that the condition was necessary.

(4) The Regional Administrator may take action under section 7003 of RCRA against a permit holder at any time whether or not the permit holder is complying with permit conditions.

(f) Notwithstanding the above provisions, EPA shall issue permits, or portions of permits, to facilities in authorized States as necessary to implement the Hazardous and Solid Waste Amendments of 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28754, July 15, 1985]

§ 271.20 Approval process.

(a) Prior to submitting an application to EPA for approval of a State program, the State shall issue public notice of its intent to seek program approval from EPA. This public notice shall:

(1) Be circulated in a manner calculated to attract the attention of interested persons including:

(i) Publication in enough of the largest newspapers in the State to attract statewide attention; and

(ii) Mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested;

(2) Indicate when and where the State's proposed submission may be reviewed by the public;

(3) Indicate the cost of obtaining a copy of the submission;

(4) Provide for a comment period of not less than 30 days during which time interested members of the public may express their views on the proposed program;

(5) Provide that a public hearing will be held by the State or EPA if sufficient public interest is shown or, alternatively, schedule such a public hearing. Any public hearing to be held by the State on its application for authorization shall be scheduled no earlier than 30 days after the notice of hearing is published;

(6) Briefly outline the fundamental aspects of the State program; and

(7) Identify a person that an interested member of the public may contact with any questions.

(b) If the proposed State program is substantially modified after the public comment period provided in paragraph (a)(4) of this section, the State shall, prior to submitting its program to the Administrator, provide an opportunity for further public comment in accordance with the procedures of paragraph (a) of this section. *Provided*, that the opportunity for further public comment may be limited to those portions of the State's application which have been changed since the prior public notice.

(c) After complying with the requirements of paragraphs (a) and (b) of this section, the State may submit, in accordance with § 271.5, a proposed program to EPA for approval. Such formal submission may only be made after the date of promulgation of the last component of Phase II. The program submission shall include copies of all written comments received by the State, a transcript, recording, or summary of any public hearing which was held by the State, and a responsiveness summary which identifies the public participation activities conducted, describes the matters presented to the public, summarizes significant comments received and responds to these comments.

(d) Within 90 days from the date of receipt of a complete program submission for final authorization, the Administrator shall make a tentative determination as to whether or not he expects to grant authorization to the State program. If the Administrator indicates that he may not approve the State program he shall include a general statement of his areas of concern. The Administrator shall give notice of this tentative determination in the FEDERAL REGISTER and in accordance with paragraph (a)(1) of this section. Notice of the tentative determination of authorization shall also:

(1) Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination of authorization. The notice may require persons wishing to present testimony to file a request with the Regional Administrator, who may cancel the public hearing if sufficient public interest in a hearing is not expressed.

(2) Afford the public 30 days after the notice to comment on the State's submission and the tentative determination; and

(3) Note the availability of the State submission for inspection and copying by the public.

(e) Within 90 days of the notice given pursuant to paragraph (d) of this section, the Administrator shall make a final determination whether or not to approve the State's program, taking into account any comments submitted. The Administrator will grant final authorization only after the effective date of the last component of Phase II. The Administrator shall give notice of this final determination in the FEDERAL REGISTER and in accordance with paragraph (a)(1) of this section. The notification shall include a concise statement of the reasons for this determination, and a response to significant comments received.

[48 FR 14243, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 271.21 Procedures for revision of State programs.

(a) Either EPA or the approved State may initiate program revision. Program revision may be necessary when the controlling Federal or State statutory or regulatory authority is modified or supplemented. The State shall keep EPA fully informed of any proposed modifications to its basic statutory or regulatory authority, its forms, procedures, or priorities.

(b) Revision of a State program shall be accomplished as follows:

(1) The State shall submit a modified program description, Attorney General's statement, Memorandum of Agreement, or such other documents as EPA determines to be necessary under the circumstances.

(2) The Administrator shall approve or disapprove program revisions based on the requirements of this part and of the Act. In approving or disapproving program revisions, the Administrator shall follow the procedures of paragraph (b)(3) or (4) of this section.

(3) The procedures for an immediate final publication of the Administrator's decision are as follows:

(i) The Administrator shall issue public notice of his approval or disapproval of a State program revision:

(A) In the Federal Register;

(B) In enough of the largest newspapers in the State to attract Statewide attention; and

(C) By mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested.

(ii) The public notice shall summarize the State program revision, indicate whether EPA intends to approve or disapprove the revision and provide for an opportunity to comment for a period of 30 days.

(iii) Approval or disapproval of a State program revision shall become effective 60 days after the date of publication in the Federal Register in accordance with paragraph (b)(3)(i) of this section, unless an adverse comment pertaining to the State revision discussed in the notice is received by the end of the comment period. If an adverse comment is received the Administrator shall so notify the State and shall, within 60 days after the date of publication, publish in the Federal Register either:

(A) A withdrawal of the immediate final decision; or

(B) A notice containing a response to comments and which either affirms that the immediate final decision takes effect or reverses the decision.

(4) The procedures for proposed and final publication of the Administrator's decision are as follows:

(i) The Administrator shall issue public notice of his proposed approval or disapproval of a State program revision:

(A) In the Federal Register;

(B) In enough of the largest newspapers in the State to attract Statewide attention; and

(C) By mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested.

(ii) The public notice shall summarize the State program revision, indicate whether EPA intends to approve or disapprove the revision and provide for an opportunity to comment for a period of at least 30 days.

(iii) A State program revision shall become effective when the Administrator's final approval is published in the Federal Register.

(c) States with approved programs shall notify EPA whenever they propose to transfer all or part of any program from the approved State agency to any other State agency, and shall identify any new division of responsibilities among the agencies involved. The new agency is not authorized to administer the program until approved by the Administrator under paragraph (b) of this section. Organizational charts required under § 271.6(b) shall be revised and resubmitted.

(d) Whenever the Administrator has reason to believe that circumstances have changed with respect to a State program, he may request, and the State shall provide, a supplemental Attorney General's statement, program description, or such other documents or information as are necessary.

(e)(1) As the Federal program changes, authorized State programs must be revised to remain in compliance with this subpart.

(2) Federal program changes are defined for purposes of this section as promulgated amendments to 40 CFR Parts 124, 270, 260–266, or 268 and any self-implementing statutory provisions (i.e., those taking effect without prior implementing regulations) which are listed as State program requirements in this subpart. States must modify their programs to reflect Federal program changes and must subsequently submit the modifications to EPA for approval.

(i) For Federal program changes occurring before July 1, 1984, the State program must be modified within one year of the date of the Federal program change.

(ii) Except as provided in paragraphs (e) (iii) and (iv) of this section, for Federal program changes occurring on or after July 1, 1984, the State program must be modified by July 1 of each year to reflect all changes to the Federal program occurring during the 12 months preceding the previous July 1. (For example, States must modify their programs by July 1, 1986 to reflect all changes from July 1, 1984 to June 30, 1985.)

(iii) For Federal program changes identified in § 271.1(j) that occur between November 8, 1984 and June 30, 1987 (inclusive), the State program must be modified by July 1, 1989.

(iv) For Federal program changes identified in § 271.1(j) that occur between July 1, 1987 and June 30, 1990 (inclusive), the State program must be modified by July 1, 1991.

(v) States may have an additional year to modify their programs for those changes to the Federal program identified in paragraphs (e) (i), (ii), (iii), and (iv) of this section which necessitate a State statutory amendment.

(3) The deadlines in paragraphs (e)(2)(i) through (v) may be extended by the Regional Administrator upon an adequate demonstration by a State that it has made a good faith effort to meet these deadlines and that its legislative or rulemaking procedures render the State unable to do so. No such extension shall exceed six months.

(4)(i) Within 30 days of the completion of the State program modification the State must submit to EPA a copy of the program change and a schedule indicating when the State intends to seek approval of the change. Such schedule shall not exceed the dates provided for in paragraph (e)(4)(ii).

(ii) Within 60 days of the appropriate deadline in paragraphs (e), (f), and (g) of this section, the State must submit to EPA the documentation described in paragraph (b) of this section to revise its program.

(f) A State must modify its program to comply with any Federal program changes which occur prior to the day that final authorization is received, except for those changes that the State has already received authorization for pursuant to § 271.3(f). Such State program modifications must be completed and submitted by the deadlines specified in paragraph (e) of this section or by the date of final authorization, whichever is later.

(g)(1) States that are unable to modify their programs by the deadlines in paragraph (e) may be placed on a schedule of compliance to adopt the program revision(s) provided that:

(i) The State has received an extension of the program modification deadline under paragraph (e)(3) and has made diligent efforts to revise its program during that period of time,

(ii) The State has made progress in adopting the program modifications,

(iii) The State submits a proposed timetable for the requisite regulatory and/or statutory revisions by the deadline granted under paragraph (e)(3),

(iv) The schedule of compliance for program revisions does not exceed one year from the extended program modification deadline under paragraph (e)(3), and

(v) The schedule of compliance is published in the Federal Register.

(2) If a State fails to comply with the schedule of compliance, the Administrator may initiate program withdrawal procedures pursuant to §§ 271.22 and 271.23.

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 7542, Mar. 4, 1986; 51 FR 33722, Sept. 22, 1986]

§ 271.22 Criteria for withdrawing approval of State programs.

(a) The Administrator may withdraw program approval when a State program no longer complies with the requirements of this subpart, and the State fails to take corrective action. Such circumstances include the following:

(1) When the State's legal authority no longer meets the requirements of this part, including:

(i) Failure of the State to promulgate or enact new authorities when necessary; or

(ii) Action by a State legislature or court striking down or limiting State authorities.

(2) When the operation of the State program fails to comply with the requirements of this part, including:

(i) Failure to exercise control over activities required to be regulated under this part, including failure to issue permits;

(ii) Repeated issuance of permits which do not conform to the requirements of this part; or

(iii) Failure to comply with the public participation requirements of this part.

(3) When the State's enforcement program fails to comply with the requirements of this part, including:

(i) Failure to act on violations of permits or other program requirements;

(ii) Failure to seek adequate enforcement penalties or to collect administrative fines when imposed; or

(iii) Failure to inspect and monitor activities subject to regulation.

(4) When the State program fails to comply with the terms of the Memorandum of Agreement required under § 271.8.

§ 271.23 Procedures for withdrawing approval of State programs.

(a) A State with a program approved under this part may voluntarily transfer program responsibilities required by Federal law to EPA by taking the following actions, or in such other manner as may be agreed upon with the Administrator.

(1) The State shall give the Administrator 180 days notice of the proposed transfer and shall submit a plan for the orderly transfer of all relevent program information not in the possession of EPA (such as permits, permit files, compliance files, reports, permit applications) which are necessary for EPA to administer the program.

(2) Within 60 days of receiving the notice and transfer plan, the Administrator shall evaluate the State's transfer plan and shall identify any additional information needed by the Federal government for program administration and/or identify any other deficiencies in the plan.

(3) At least 30 days before the transfer is to occur the Administrator shall publish notice of the transfer in the FEDERAL REGISTER and in enough of the largest newspapers in the State to provide Statewide coverage, and shall mail notice to all permit holders, permit applicants, other regulated persons and other interested persons on appropriate EPA and State mailing lists.

(b) The following procedures apply when the Administrator orders the commencement of proceedings to determine whether to withdraw approval of a State program.

(1) *Order.* The Administrator may order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person alleging failure of the State to comply with the requirements of this part as set forth in § 271.22. The Administrator shall respond in writing to any petition to commence withdrawal proceedings. He may conduct an informal investigation of the allegations in the petition to determine whether cause exists to commence proceedings under this paragraph. The Administrator's order commencing proceedings under this paragraph shall fix a time and place for the commencement of the hearing and shall specify the allegations against the State which are to be considered at the hearing. Within 30 days the State shall admit or deny these allegations in a written answer. The party seeking with drawal of the State's program shall have the burden of coming forward with the evidence in a hearing under this paragraph.

(2) *Definitions.* For purposes of this paragraph the definitions of "Act",

"Administrative Law Judge", "Hearing", "Hearing Clerk", and "Presiding Officer" in 40 CFR 22.03 apply in addition to the following:

(i) "Party" means the petitioner, the State, the Agency and any other person whose request to participate as a party is granted.

(ii) "Person" means the Agency, the State and any individual or organization having an interest in the subject matter of the proceeding.

(iii) "Petitioner" means any person whose petition for commencement of withdrawal proceedings has been granted by the Administrator.

(3) *Procedures*. The following provisions of 40 CFR Part 22 (Consolidated Rules of Practice) are applicable to proceedings under this paragraph:

(i) Section 22.02—(use of number/gender);

(ii) Section 22.04(c)—(authorities of Presiding Officer);

(iii) Section 22.06—(filing/service of rulings and orders);

(iv) Section 22.07 (a) and (b)—except that, the time for commencement of the hearing shall not be extended beyond the date set in the Administrator's order without approval of the Administrator (computation/extension of time);

(v) Section 22.08—however, substitute "order commencing proceedings" for "complaint"—(Ex Parte contacts);

(vi) Section 22.09—(examination of filed documents);

(vii) Section 22.11 (a), (c) and (d), however, motions to intervene must be filed 15 days from the date the notice of the Administrator's order is first published—(intervention);

(viii) Section 22.16 except that, service shall be in accordance with paragraph (b)(4) of this section, the first sentence in § 22.16(c) shall be deleted, and, the word "recommended" shall be substituted for the word "initial" in § 22.16(c)—(motions);

(ix) Section 22.19 (a), (b) and (c)—(prehearing conference);

(x) Section 22.22—(evidence);

(xi) Section 22.23—(objections/offers of proof);

(xii) Section 22.25—(filing the transcript); and

(xiii) Section 22.26—(findings/conclusions).

(4) *Record of proceedings*. (i) The hearing shall be either stenographically reported verbatim or tape recorded, and thereupon transcribed by an official reporter designated by the Presiding Officer;

(ii) All orders issued by the Presiding Officer, transcripts of testimony, written statements of position, stipulations, exhibits, motions, briefs, and other written material of any kind submitted in the hearing shall be a part of the record and shall be available for inspection or copying in the Office of the Hearing Clerk, 401 M Street, S.W., Washington, DC 20460;

(iii) Upon notice to all parties the Presiding Officer may authorize corrections to the transcript which involve matters of substance;

(iv) An original and two (2) copies of all written submissions to the hearing shall be filed with the Hearing Clerk;

(v) A copy of each such submission shall be served by the person making the submission upon the Presiding Officer and each party of record. Service under this paragraph shall take place by mail or personal delivery;

(vi) Every submission shall be accompanied by an acknowledgement of service by the person served or proof of service in the form of a statement of the date, time, and manner of service and the names of the persons served, certified by the person who made service; and

(vii) The Hearing Clerk shall maintain and furnish to any person upon request, a list containing the name, service address, and telephone number of all parties and their attorneys or duly authorized representatives.

(5) *Participation by a person not a party*. A person who is not a party may, at the discretion of the Presiding Officer, be permitted to make a limited appearance by makng an oral or written statement of his/her position on the issues within such limits and on such conditions as may be fixed by the Presiding Officer, but he/she may not otherwise participate in the proceeding.

(6) *Rights of parties*. All parties to the proceeding may:

(i) Appear by counsel or other representative in all hearing and pre-hearing proceedings;

(ii) Agree to stipulations of facts which shall be made a part of the record.

(7) *Recommended decision.* (i) Within 30 days after the filing of proposed findings and conclusions, and reply briefs, the Presiding Officer shall evaluate the record before him/her, the proposed findings and conclusions and any briefs filed by the parties and shall prepare a recommended decision, and shall certify the entire record, including the recommended decision, to the Administrator.

(ii) Copies of the recommended decision shall be served upon all parties.

(iii) Within 20 days after the certification and filing of the record and recommended decision, all parties may file with the Administrator exceptions to the recommended decision and a supporting brief.

(8) *Decision by Administrator.* (i) Within 60 days after the certification of the record and filing of the Presiding Officer's recommended decision, the Administrator shall review the record before him and issue his own decision.

(ii) If the Administrator concludes that the State has administered the program in conformity with the Act and regulations his decision shall constitute "final agency action" within the meaning of 5 U.S.C. 704.

(iii) If the Administrator concludes that the State has not administered the program in conformity with the Act and regulations he shall list the deficiencies in the program and provide the State a reasonable time, not to exceed 90 days, to take such appropriate corrective action as the Administrator determines necessary.

(iv) Within the time prescribed by the Administrator the State shall take such appropriate corrective action as required by the Administrator and shall file with the Administrator and all parties a statement certified by the State Director that appropriate corrective action has been taken.

(v) The Administrator may require a further showing in addition to the certified statement that corrective action has been taken.

(vi) If the State fails to take appropriate corrective action and file a certified statement thereof within the time prescribed by the Administrator, the Administrator shall issue a supplementary order withdrawing approval of the State program. If the State takes appropriate corrective action, the Administrator shall issue a supplementary order stating that approval of authority is not withdrawn.

(vii) The Administrator's supplementary order shall constitute final Agency action within the meaning of 5 U.S.C. 704.

(c) Withdrawal of authorization under this section and the Act does not relieve any person from complying with the requirements of State law, nor does it affect the validity of actions by the State prior to withdrawal.

§ 271.24 Interim authorization under section 3006(g) of RCRA.

(a) Any State which is applying for or has been granted final authorization pursuant to section 3006(b) of RCRA may submit to the Administrator evidence that its program contains (or has been amended to include) any requirement which is substantially equivalent to a requirement identified in § 271.1(j) of this chapter. Such a State may request interim authorization under section 3006(*g*) of RCRA to carry out the State requirement in lieu of the Administrator carrying out the Federal requirement.

(b) The applications shall be governed by the procedures for program revisions in § 271.21(b) of this chapter.

(c) Interim authorization pursuant to this section expires on January 1, 1993.

[51 FR 33722, Sept. 22, 1986]

§ 271.25 HSWA requirements.

Unless otherwise provided in Part 271, the State program shall have standards at least as stringent as the requirements and prohibitions that have taken effect under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

[51 FR 33723, Sept. 22, 1986]

Subpart B—Requirements for Interim Authorization

§ 271.121 Purpose and scope.

(a) This subpart specifies requirements a State program must meet in order to obtain interim authorization under section 3006(c) of RCRA. A State must meet all the requirements of this subpart in order to qualify for interim authorization. The requirements a State program must meet in order to obtain final authorization under section 3006(b) of RCRA are specified in Subpart A. In addition, § 271.138 addresses the availability of interim authorization under section 3006(g)(2) of RCRA for States with interim authorization under section 3006(c) of RCRA.

(b) Interim Authorization of State programs under this subpart may occur in two phases. The first phase (Phase I) allows States to administer a hazardous waste program in lieu of and corresponding to that portion of the Federal program which covers identification and listing of hazardous waste (40 CFR Part 261), generators (40 CFR Part 262) and transporters (40 CFR Part 263) of hazardous wastes, and establishes preliminary (interim status) standards for hazardous waste treatment, storage and disposal facilities (40 CFR Part 265). The second phase (Phase II) allows States to administer a permit program for hazardous waste treatment, storage and disposal facilities in lieu of and corresponding to the Federal hazardous waste permit program (40 CFR Parts 270, 124 and 264), as explained in paragraph (c) of this section.

(c) Because some of the Subparts of the Federal regulations containing standards for hazardous waste treatment, storage and disposal facilities (40 CFR Part 264) will be promulgated at different times, Phase II of interim authorization will be implemented in several components.

(1) Each component of Phase II of interim authorization will correspond to specified Parts and Subparts of the Federal regulations.

(2) EPA will announce each component of Phase II of interim authorization in a FEDERAL REGISTER notice. The notice will announce that States may apply for interim authorization for one or more components. The notice will also provide the effective date of the component(s) and specifically identify the parts and subparts of the Federal regulations comprising the component(s).

(3) States meeting the requirements of this subpart will be allowed to administer a permit program in lieu of the corresponding Federal hazardous waste permit program for each component for which they have received interim authorization, except as provided below:

(i) Any requirement of prohibition which is applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which is imposed pursuant to the amendments made by the Hazardous and Solid Waste Amendments of 1984 takes effect in each State having an interim authorized State program on the same date as such requirement takes effect in other States. These requirements and prohibitions are identified in § 271.1(j).

(ii) The requirements and prohibitions in § 271.1(j) supersede any less stringent provision of the State program. The Administrator is authorized to carry out each Federal requirement and prohibition identified in § 271.1(j) in an authorized State except where the State has received interim authorization under section 3006(g)(2) of RCRA to carry out the particular requirement or prohibition. Violations of Federal requirements and prohibitions effective in authorized States are enforceable under sections 3008, 3013, and 7003 of RCRA.

(iii) Until an authorized State program is revised to reflect the amendments made by the Hazardous and Solid Waste Amendments of 1984 and such program revisions receive interim authorization under section 3006(g)(2) of RCRA, the Administrator shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984.

(d) States may apply for interim authorization either sequentially or all at once, as long as they adhere to the schedule in § 271.122. For example, States may:

(1) Apply for interim authorization for Phase I and amend that application each time a component of Phase II is announced; or

(2) Apply for interim authorization for Phase I, wait until the last component of Phase II had been announced, and amend the Phase I application at that time to include all components of Phase II; or

(3) Apply at the same time for interim authorization for Phase I and for already announced components of Phase II, and amend the application each time an additional component of Phase II is announced; or

(4) Wait until the last component of Phase II has been announced, and apply at the same time for interim authorization for Phase I and for all components of Phase II.

(e) The Administrator shall approve a State program which meets the applicable requirements of this subpart.

(f) Except as provided in paragraph (c)(3) of this section, upon approval of a State program for a component of Phase II, the Administrator shall suspend the issuance of Federal permits for those activities subject to the approved State program.

(g) Any State program approved by the Administrator under this subpart shall at all times be conducted in accordance with this subpart.

(h) Lack of authority to regulate activities on Indian lands does not impair a State's ability to obtain interim authorization under this subpart. EPA will administer the program on Indian lands if the State does not seek this authority.

NOTE: States are advised to contact the United States Department of Interior, Bureau of Indian Affairs, concerning authority over Indian lands.

(i) Nothing in this subpart precludes a State from:

(1) Adopting or enforcing requirements which are more stringent or more extensive than those required under this subpart.

(2) Operating a program with a greater scope of coverage than that required under this subpart. Where an approved program has a greater scope of coverage than required by Federal law the additional coverage is not part of the Federally approved program.

[48 FR 14248, Apr. 1, 1983; 48 FR 30115, June 30, 1983, as amended at 50 FR 28754, July 15, 1985; 51 FR 33723, Sept. 22, 1986]

§ 271.122 Schedule.

(a) Interim authorization for Phase I shall not take effect until Phase I commences. Interim authorization for each component of Phase II shall not take effect until the effective date of that component.

(b)(1) Interim authorization for Phase I and Phase II expires on January 31, 1986.

(2) At the end of this period all interim authorizations automatically expire and EPA shall administer the Federal program in any State which has not received final authorization.

(c)(1) A State may apply for interim authorization at any time prior to expiration of the 6th month of the 24-month period beginning with the effective date of the last component of Phase II. The Regional Administrator may extend the application period for good cause.

(2) A State applying for interim authorization prior to the announcement of the first component of Phase II shall apply only for interim authorization for Phase I.

(3) A State may apply for interim authorization for a component of Phase II upon the announcement of that component, provided that the State meets the requirement of paragraph (d) of this section.

(4) A State which has received interim authorization for Phase I (or interim authorization for Phase I and for some but not all of the components of Phase II) shall amend its original submission to include all of the components of Phase II not later than 6 months after the effective date of the last component of Phase II. The Regional Administrator may extend this deadline for good cause.

(d)(1) No State may apply for interim authorization for a component of Phase II unless it: (i) Has received interim authorization for Phase I; or (ii) is simultaneously applying for interim authorization for that component of Phase II and for Phase I.

(2) When a State applies for interim authorization for a particular component of Phase II, it shall demonstrate that its interim authorization program for Phase I (and, if applicable, its program for any other component of Phase II) is substantially eqivalent to the Federal program, including modifications to the Federal program, as follows:

(i) Any State already authorized for parts of the Federal program shall amend its original submission to include any additional requirements for Phase I (and any additional requirements for other Phase II components for which the State is authorized) which were promulgated on or before the announcement date of the particular Phase II component being applied for.

(ii) Any State not yet authorized for any of the Federal programs shall include in its submission those Phase I requirements which were promulgated on or before the announcement date of the particular Phase II component being applied for. Any new State program which is applying for more than one component of Phase II shall include in its submission the additional requirements for such other components which were promulgated on or before the announcement date of the particular Phase II component being applied for.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28755, July 15, 1985]

§ 271.123 Elements of a program submission.

(a) Any State that seeks to administer a program under this subpart shall submit to the Administrator at least three copies of a program submission. The submission shall contain the following:

(1) A letter from the Governor of the State requesting program approval;

(2) A complete program description, as required by § 271.124 describing how the State intends to carry out its responsibilities under this part;

(3) An Attorney General's statement as required by § 271.125;

(4) Memorandum of Agreement with the Regional Administrator as required by § 271.126;

(5) An authorization plan as required by § 271.127; and

(6) Copies of all applicable State statutes and regulations, including those governing State administrative procedures.

(b) Within 30 days of receipt by EPA of a State program submission, EPA will notify the State whether its submission is complete. If EPA finds that a State's submission is complete, the formal review period shall be deemed to have begun on the date of receipt of the State's submission. If EPA finds that a State's submission is incomplete, the review period shall not begin until all necessary information is received by EPA.

(c) If the State's submission is materially changed during the review period, the review period shall begin again upon receipt of the revised submission.

(d) A State simultaneously applying for interim authorization for both Phase I and a component of Phase II shall prepare a single submission.

(e) A State applying for interim authorization for a component of Phase II after receiving interim authorization for Phase I (or for Phase I and previous components of Phase II) shall amend its previous submission for interim authorization as specified in §§ 271.124 to 271.127.

§ 271.124 Program description.

Any State that seeks to administer a program under this subpart shall submit a description of the program it proposes to administer in lieu of the Federal program under State law or under an interstate compact. A State applying only for interim authorization for a component of Phase II shall amend its program description for interim authorization for Phase I (or for Phase I and previous components of Phase II) as necessary to reflect the program it proposes to administer to meet the requirements for interim authorization corresponding to the component of Phase II for which the State is applying. The program description shall include:

(a) A description in narrative form of the scope, structure, coverage and processes of the State program.

(b) A description (including organization charts) of the organization and structure of the State agency or agencies which will have responsibility for administering the program, including the information listed below. If more than one agency is responsible for administration of a program, each agency must have statewide jurisdiction over a class of activities. The responsibilities of each agency must be delineated, their procedures for coordination set forth, and an agency must be designated as a "lead agency" to facilitate communications between EPA and the State agencies having program responsibilities. When the State proposes to administer a program of greater scope of coverage than is required by Federal law, the information provided under this paragraph shall indicate the resources dedicated to administering the Federally required portion of the program.

(1) A description of the State agency staff who will carry out the State program, including the number, occupations, and general duties of the employees. The State need not submit complete job description for every employee carrying out the State program.

(2) An itemization of the estimated costs of establishing and administering the program, including cost of the personnel listed in paragraph (b)(1) of this section, cost of administrative support, and cost of technical support.

(3) An itemization of the sources and amounts of funding, including an estimate of Federal grant money, available to the State Director to meet the costs listed in paragraph (b)(2) of this section, identifying any restrictions or limitation upon this funding.

(c) A description of applicable State procedures, including permitting procedures and any State administrative or judicial review procedures.

[NOTE: States applying only for interim authorization for Phase I need describe permitting procedures only to the extent they will be utilized to assure compliance with standards substantially equivalent to CFR Part 265.]

(d) Copies of the permit form(s), application form(s), reporting form(s), and manifest format the State intends to employ in its program. Forms used by States need not be identical to the forms used by EPA but should require the same basic information. The State need not provide copies of uniform national forms it intends to use but should note its intention to use such forms.

(e) A complete description of the State's compliance tracking and enforcement program.

(f) A description of the State manifest tracking system, if the State has such a system and of the procedures the State will use to coordinate information with other approved State programs and the Federal program regarding interstate and international shipments.

(g) An estimate of the number of the following:

(1) Generators;

(2) Transporters; and

(3) On- and off-site storage, treatment and disposal facilities, and a brief description of the types of facilities and an indication of the permit status of these facilities.

§ 271.125 Attorney General's statement.

(a) Any State that seeks to administer a program under this subpart shall submit a statement from the Attorney General (or the attorney for those State agencies which have independent legal counsel) that the laws of the State provide adequate authority to carry out the program described under § 271.124 and to meet the requirements of this subpart. This statement shall include citations to the specific statutes, administrative regulations, and, where appropriate, judicial decisions which demonstrate adequate authority. Except as provided in § 271.128(d), the State Attorney General or independent legal counsel must certify that the enabling legislation for the State's program was in existence within 90 days of the announcement of the last component of Phase II. State statutes and regulations cited by the State Attorney General or independent legal counsel shall be in the form of lawfully adopted State statutes and regulations at the time the statement is signed and shall be fully effective by the time the program is approved. To qualify as "independent legal counsel" the attorney signing the statement required by this section must have full authority to independently represent the State agency in court on all matters pertaining to the State program. In the case of a State applying only for interim authorization for a component of Phase II, the Attorney General's statement submitted for interim authorization for Phase I (or for Phase I and previous components of Phase II) shall be amended and recertified to demonstrate adequate authority to carry out all requirements of that component.

(b)(1) In the case of a State applying for interim authorization for Phase I, the Attorney General's statement shall certify that the authorization plan under § 271.127(a), if carried out, would provide the State with enabling authority and regulations adequate to meet the requirements for final authorization contained in Phase I.

(2) In the case of a State applying for interim authorization for a component of Phase II, the Attorney General's statement shall certify that the authorization plan under § 271.127(b), if carried out, would provide the State with enabling authority and regulations adequate to meet all the requirements for final authorization contained in that component of Phase II.

[NOTE: EPA will supply States with an Attorney General's statement format on request.]

(c) When a State seeks authority over activities on Indian lands, the statement shall contain an appropriate analysis of the State's authority.

§ 271.126 Memorandum of Agreement with the Regional Administrator.

(a) Any State that seeks to administer a program under this subpart shall submit a Memorandum of Agreement (MOA). The Memorandum of Agreement shall be executed by the State Director and the Regional Administrator and shall become effective when approved by the Administrator. In addition to meeting the requirements of paragraph (b) of this section and, if applicable, paragraph (c) of this section, the Memorandum of Agreement may include other terms, conditions, or agreements consistent with this part and relevant to the administration and enforcement of the State's regulatory program. The Administrator shall not approve any Memorandum of Agreement which contains provisions which restrict EPA's statutory oversight responsibility. In the case of a State applying for interim authorization for a component of Phase II, the Memorandum of Agreement shall be amended and reexecuted to include the requirements of paragraph (c) of this section and any necessary revisions to the requirements of paragraph (b) of this section.

(b) The Memorandum of Agreement shall include the following:

(1) Provisions for the Regional Administrator to promptly forward to the State Director information obtained prior to program approval in notifications provided under section 3010 (a) of RCRA. The Regional Administrator and the State Director shall agree on procedures for the assignment of EPA identification numbers for new generators, transporters, treatment, storage, and disposal facilities.

(2) Provisions specifying the frequency and content of reports, documents and other information which the State is required to submit to EPA. The State shall allow EPA to routinely review State records, reports, and files relevant to the administration and enforcement of the approved program. State reports may be combined with grant reports where appropriate.

(3) Provisions on the State's compliance monitoring and enforcement program, including:

(i) Provisions for coordination of compliance monitoring activities by the State and by EPA. These may specify the basis on which the Regional Administrator will select facilities or activities within the State for EPA inspection. The Regional Administrator will normally notify the State at least 7 days before any such inspection; and

(ii) Procedures to assure coordination of enforcement activities.

(4) Provisions allowing EPA to conduct compliance inspections of all generators, transporters, and HWM facilities during interim authorization. The Regional Administrator and the State

Director may agree to limitations on compliance inspections of generators, transporters, and non-major HWM facilities.

(5) No limitations on EPA compliance inspections of generators, transporters, or non-major HWM facilities under paragraph (b)(4) of this section shall restrict EPA's right to inspect any generator, transporter, or HWM facility which it has cause to believe is not compliance with RCRA; however, before conducting such an inspection, EPA will normally allow the State a reasonable opportunity to conduct a compliance evaluation inspection.

(6) Provisions delineating respective State and EPA responsibilities during the interim authorization period.

(7) Provisions for modification of the Memorandum of Agreement in accordance with this part.

(c) In addition, Memoranda of Agreement for Phase II shall also include the following, as applicable to the component of Phase II for which the State is applying:

(1) Provisions for the prompt transfer from EPA to the State of pending permit applications and any other information relevant to program operation not already in the possession of the State Director (e.g., support files for permit issuance, compliance reports, etc.). When existing permits are transferred from EPA to the State for administration, the Memorandum of Agreement shall contain provisions specifying a procedure for transferring the administration of these permits. If a State lacks the authority to directly administer permits issued by the Federal government, a procedure may be established to transfer responsibility for these permits.

(2) Provisions specifying classes and categories of permit applications and draft permits that the State Director will send to the Regional Administrator for review and comment.

(3) When appropriate, provisions for joint processing of permits by the State and EPA, for facilities or activities which require permits from both EPA and the State under different programs. See § 124.4.

(4) Provisions for the State Director to promptly forward to EPA copies of draft permits and permit applications for all major HWM facilities for review and comment. The Regional Administrator and the State Director may agree to limitations regarding review of and comment on draft permits and/or permit applications for non-major HWM facilities. The State Director shall supply EPA copies of final permits for all major HWM facilities.

[48 FR 14248, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 271.127 Authorization plan.

The State must submit an "authorization plan" which shall describe the additions and modifications necessary for the State program to qualify for final authorization as soon as practicable, but no later then the end of the interim authorization period. This plan shall include the nature of and schedules for any changes in State legislation and regulations; resources levels; actions the State must take to control the complete universe of hazardous waste listed or designated under section 3001 of RCRA as soon as possible; the manifest and permit systems; and the surveillance and enforcement program which will be necessary in order for the State to become eligible for final authorization.

(a)(1) In the case of a State applying only for interim authorization for Phase I, the authorization plan shall describe the additions and modifications necessary for the State program to meet the requirements for final authorization contained in Phase I.

(2) In the case of a State applying only for interim authorization for a component of Phase II, the authorization plan for Phase I (or for Phase I and previous components of Phase II) shall be amended to meet the requirements of paragraph (b) of this section.

(b)(1) In the case of a State applying for interim authorization for a component of Phase II, the authorization plan shall describe the additions and modifications necessary for the State program to meet the requirements for final authorization corresponding to that component of Phase II and the requirements for final authorization corresponding to Phase I and previous components of Phase II.

(2) In the case of a State applying for interim authorization for the last component of Phase II, the authorization plan shall describe the additions and modifications necessary for the State program to meet all the requirements for final authorization.

§ 271.128 Program requirements for interim authorization for Phase I.

The following requirements are applicable to States applying for interim authorization for Phase I. If a State does not have legislative authority or regulatory control over certain activities that do not occur in the State, the State may be granted interim authorization for Phase I provided the State authorization plan under § 271.127 provides for the development of a complete program as soon as practicable after receiving interim authorization.

(a) Requirements for identification and listing of hazardous waste. The State program must control a universe of hazardous wastes generated, transported, treated, stored, and disposed of in the State which is nearly identical to that which would be controlled by the Federal program under 40 CFR Part 261.

(b) Requirements for generators of hazardous waste.

(1) This paragraph applies unless the State comes within the exceptions described under paragraph (d) of this section.

(2) The State program must cover all generators of hazardous waste controlled by the State.

(3) The State shall have the authority to require and shall require all generators covered by the State program to comply with reporting and recordkeeping requirements substantially equivalent to those found at 40 CFR 262.40 and 262.41.

(4) The State program must require that generators who accumulate hazardous wastes for short periods of time do so in a manner that does not present a hazard to human health or the environment.

(5) The State program shall provide requirements respecting international shipments which are substantially equivalent to those at 40 CFR 262.50, except that advance notification of international shipment, as required by 40 CFR 262.50(b)(1), shall be filed with the Administrator. The State may require that a copy of such advance notice be filed with the State Director, or may require equivalent reporting procedures.

[Note: Such notices shall be mailed to Hazardous Waste Export, Division for Oceans and Regulatory Affairs (A-107), U.S. Environmental Protection Agency, Washington, DC 20460.]

(6) The State program must require that such generators of hazardous waste who transport (or offer for transport) such hazardous waste offsite use a manifest system that ensures that inter-and intrastate shipments of hazardous waste are designated for delivery, and, in the case of intrastate shipments, are delivered only to facilities that are authorized to operate under an approved State program or the Federal program.

(7) The State manifest system must require that:

(i) The manifest itself identify the generator, transporter, designated facility to which the hazardous waste will be transported, and the hazardous waste being transported;

(ii) The manifest accompany all wastes offered for transport, except in the case of shipments by rail or water specified in §§ 262.23 (c) and (d) and 263.20 (e) and (f); and

(iii) Shipments of hazardous waste that are not delivered to a designated facility are either identified and reported by the generator to the State in which the shipment originated or are independently identified by the State in which the shipment originated.

(8) In the case of interstate shipments for which the manifest has not been returned, the State program must provide for notification to the State in which the facility designated on the manifest is located and to the State in which the shipment may have been delivered (or to EPA in the case of unauthorized States).

(c) Requirements for transporters of hazardous wastes.

(1) This paragraph applies unless the State comes within the exceptions

described under paragraph (d) of this section.

(2) The State program must cover all transporters of hazardous waste controlled by the State.

(3) The States shall have the authority to require and shall require all transporters covered by the State program to comply with recordkeeping requirements substantially equivalent to those found at 40 CFR 263.22.

(4) The State program must require such transporters of hazardous waste to use a manifest system that ensures that inter- and intrastate shipments of hazardous waste are delivered only to facilities that are authorized under an approved State program or the Federal program.

(5) The State program must require that transportation carry the manifest with all shipments, except in the case of shipments by rail or water specified in 40 CFR 263.20 (e) and (f).

(6) For hazardous wastes that are discharged in transit, the State program must require that transporters notify appropriate State, local and Federal agencies of the discharges, and clean up the wastes or take action so that the wastes do not present a hazard to human health or the environment. These requirements shall be substantially equivalent to those found at 40 CFR 263.20 and 263.31.

(d) Limited exceptions from generator, transporter, and related manifest requirements. A State applying for interim authorization for Phase I which meets all the requirements for such interim authorization except that it does not have statutory or regulatory authority for the manifest system or other generator or transporter requirements discussed in paragraphs (b) and (c) of this section may be granted in interim authorization, if the State authorization plan under § 271.127 delineates the necessary steps for obtaining this authority no later than the end of the interim authorization period under § 271.122(b). A State may apply for interim authorization to implement the manifest system and other generator and transporter requirements if the enabling legislation for that part of the program was in existence within 90 days of the announcement of the last component of Phase II. States which received interim authorization for Phase I under the terms of this paragraph may apply for interim authorization to implement the manifest system and other generator and transporter requirements as a part of the State's submission for Phase II or as mutually agreed upon between EPA and the State. Until the State manifest system and other generator and transporter requirements are approved by EPA, all Federal requirements for generators and transporters (including use of the Federal manifest system) shall apply in such States and enforcement responsibility for that part of the program shall remain with the Federal government. The universe of wastes for which these Federal requirements apply shall be the universe of wastes controlled by the State under paragraph (a) of this section.

(e) Requirements for hazardous waste treatment, storage and disposal facilities. States must have standards applicable to HWM facilities which are substantially equivalent to 40 CFR Part 265. State law shall prohibit the operation of facilities not in compliance with such standards. These standards shall include:

(1) Prepardness for and prevention of releases of hazardous waste controlled by the State under paragraph (a) of this section and contingency plans and emergency procedures to be followed in the event of a release of such hazardous waste;

(2) Closure and post-closure requirements;

(3) Ground-water monitoring;

(4) Security to prevent unknowing and unauthorized access to the facility;

(5) Facility personnel training;

(6) Inspection, monitoring, recordkeeping, and reporting;

(7) Compliance with the manifest system including the requirement that the facility owner or operator or the State in which the facility is located must return a copy of the manifest to the generator or to the State in which the generator is located indicating delivery of the waste shipment; and

(8) Other facility standards to the extent that they are included in 40 CFR Part 265, except that Subpart R

(standards for injection wells) may be included in the State standards, at the State's option.

(f) Requirements for enforcement authority. (1) Any State agency administering a program under this subpart shall have the following authority to remedy violations of State program requirements:

(i) Authority to restrain immediately by order or by suit in State court any person from engaging in any unauthorized activity which is endangering or causing damage to public health or the environment;

(ii) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement, including, where appropriate, permit conditions, without the necessity of a prior revocation of the permit; and

(iii) For any program violation, to assess or sue to recover in court civil penalties in at least the amount of $1000 per day or to seek criminal fines in at least the amount of $1000 per day.

(2) Any State administering a program under this subpart shall provide for public participation in the State enforcement process by providing either:

(i) Authority which allows intervention as of right in any civil action to obtain the remedies specified in paragraphs (f)(1) (ii) and (iii) of this section by any citizen having an interest which is or may be adversely affected; or

(ii)(A) Assurance by the appropriate State agency that it will investigate and provide written responses to all citizen complaints submitted pursuant to the procedures specified in paragraph (g)(5)(iv) of this section;

(B) Assurance by the appropriate State enforcement authority that it will not oppose intervention by any citizen when permissive intervention is authorized by statute, rule, or regulation; and

(C) Assurance by the appropriate State enforcement authority that it will publish notice of and provide at least 30 days for public comment on all proposed settlements of civil enforcement actions, except in cases where a settlement requires some immediate action (e.g., cleanup) which if otherwise delayed could result in substantial damage to either public health or the environment.

(g) Requirements for compliance evaluation programs.

(1) A State program under this Subpart shall have procedures for receipt, evaluation, recordkeeping, and investigation for possible enforcement of all required notices and reports.

(2) The State program shall (i) include independent State inspection and surveillance authority to determine compliance or non-compliance with applicable program requirements; or (ii) the State program shall indicate that the State will rely on and act under the inspection authority provided in section 3007(a) of RCRA.

(3) If the State is relying on independent State inspection and surveillance authority, the authority shall include authority to enter any conveyance, vehicle, facility, or premises subject to regulation or in which records relevant to program operation are kept in order to inspect, obtain samples, monitor or otherwise investigate compliance with the State program. States whose law requires a search warrant prior to entry comply with this requirement.

(4) If the State is relying on the authority in section 3007(a), the State program must contain assurances that there are no provisions of State law which prevent the State from using that authority.

(5) The State program must include:

(i) The capability to make comprehensive surveys of any activities subject to the State Director's authority in order to identify persons subject to regulation who have failed to comply with program requirements;

(ii) A program for periodic inspection of the activities subject to regulation;

(iii) The capability to investigate evidence of violations of applicable program and permit requirements;

(iv) Procedures to determine compliance or non-compliance with applicable program requirements including procedures for receiving and ensuring proper consideration of information submitted by the public about violations. Public effort in reporting violations shall be encouraged and the State Director shall make available information on reporting procedures.

(6) Investigatory inspections shall be conducted, samples shall be taken, and other information shall be gathered in a manner (e.g., using proper "chain of custody" procedures) that will produce evidence admissible in an enforcement proceeding or in court.

(Secs. 1006, 2002(a), 3006 and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a), 6926 and 6974)

[48 FR 14248, Apr. 1, 1983, as amended at 49 FR 7372, Feb. 29, 1984]

§ 271.129 Additional program requirements for interim authorization for Phase II.

In addition to the requirements of § 271.128, the following requirements are applicable to States applying for a component of Phase II.

(a)(1) State programs must have standards applicable to hazardous waste management facilities that provide substantially the same degree of human health and environmental protection as the standards promulgated in the Subparts of 40 CFR Part 264 comprising that component.

(2) The Administrator may authorize a State program for Phase II Components A or B, or both, even though the State program does not include liability coverage requirements, if (i) the State submitted a draft application for the component or components of Phase II interim authorization prior to April 16, 1982, and (ii) the State commits in its Memorandum of Agreement to adopt State liability coverage requirements as quickly as practicable, but in no case later than the State's application for an additional component of Phase II interim authorization.

(3) Any State which receives interim authorization for Components A or B or both without liability coverage requirements, pursuant to paragraph (a)(2) of this section, may not receive an additional component of Phase II interim authorization unless it has liability coverage requirements in effect.

(4) The Administrator may authorize a State program for Phase II Component A, even though the State program does not have standards corresponding to 40 CFR Subpart K (Surface Impoundments), if the State commits in its Memorandum of Agreement to adopt State standards substantially equivalent to 40 CFR Part 264 Subpart K no later than the State's application for the Phase II component corresponding to the Federal land disposal standards.

(5) Any State which receives interim authorization for Component A without surface impoundment standards pursuant to paragraph (a)(4) of this section, may not receive interim authorization for the Phase II component corresponding to the Federal land disposal standards unless it has standards substantially equivalent to 40 CFR Part 264 Subpart K in effect.

(b)(1) State programs shall require a permit for owners and operators of those hazardous waste treatment, storage and disposal facilities:

(i) Corresponding to that component;

(ii) Which handle any waste controlled by the State under § 271.128(a); and

(iii) For which a permit is required under 40 CFR Part 270.

(2) The State program shall prohibit the operation of such facilities without a permit, provided States may authorize owners and operators of facilities which would qualify for interim status under the Federal program (if State law so authorizes) to remain in operation pending permit action. Where State law authorizes such continued operation it shall require compliance by owners and operators of such facilities with standards substantially equivalent to EPA's interim status standards under 40 CFR Part 265.

(c) All permits issued by the State under this section shall require compliance with the standards adopted by the State in accordance with paragraph (a) of this section.

(d) State programs shall have requirements for permitting which are substantially equivalent to the provisions listed in § 271.14, except that States must have requirements equivalent to § 124.10(b)(1), (c)(1)(ix), (c)(2)(ii) and § 124.12(a).

(e) A State with interim authorization for a component of Phase II may not issue permits pursuant to that component with a term greater than ten years.

(f) State programs shall require that a facility which, under the Federal hazardous waste management program would be deemed to have a Federal permit if the conditions established in § 270.60 of this chapter are met, comply with standards at least substantially equivalent to the applicable standards in § 270.60 of this chapter. Such standards need not be imposed through issuance of a permit, but must be fully enforceable.

§ 271.130 Interstate movement of hazardous waste.

(a) If a waste is transported from a State where it is listed or designated as hazardous under the program applicable in that State, whether that is the Federal program or an approved State program, into a State with interim authorization where it is not listed or designated, the waste must be manifested in accordance with the laws of the State where the waste was generated and must be treated, stored, or disposed of as required by the laws of the State into which it has been transported.

(b) If a waste is transported from a State with interim authorization where it is not listed or designated as hazardous into a State where it is listed or designated as hazardous under the program applicable in that State, whether that is the Federal program or an approved State program, the waste must be treated, stored, or disposed of in accordance with the law applicable in the State into which it has been transported.

(c) In all cases of interstate movement of hazardous waste, as defined by 40 CFR Part 261, generators and transporters must meet DOT requirements in 49 CFR Parts 172, 173, 178, and 179 (e.g., for shipping paper, packaging, labeling, marking, and placarding).

§ 271.131 Progress reports.

The State Director shall submit a semi-annual progress report to the EPA Regional Administrator within 4 weeks of the date 6 months after Phase I commences, and at 6-month intervals thereafter until the expiration of interim authorization. The reports shall briefly summarize, in a manner and form prescribed by the Regional Administrator, the State's compliance in meeting the requirements of the authorization plan, the reasons and proposed remedies for any delay in meeting milestones, and the anticipated problems and solutions for the next reporting period.

§ 271.132 Sharing of information.

(a) Any information obtained or used in the administration of a State program shall be available to EPA upon request without restriction. If the information has been submitted to the State under a claim of confidentiality, the State must submit that claim to EPA when providing information under this subpart. Any information obtained from a State and subject to a claim of confidentiality will be treated in accordance with the regulations in 40 CFR Part 2. If EPA obtains from a State information that is not claimed to be confidential, EPA may make that information available to the public without further notice.

(b) EPA shall furnish to States with approved programs the information in its files not submitted under a claim of confidentiality which the State needs to implement its approved program. EPA shall furnish to States with approved programs information submitted to EPA under a claim of confidentiality, which the States needs to implement its approved program, subject to the conditions in 40 CFR Part 2.

§ 271.133 Coordination with other programs.

(a) Issuance of State permits under this part may be coordinated, as provided in Part 124, with issuance of UIC, NPDES, and 404 permits whether they are controlled by the State, EPA or the Corps of Engineers. See § 124.4.

(b) The State Director of any approved program which may effect the planning for the development of hazardous waste management facilities and practices shall consult and coordinate with agencies designated under section 4006(b) of RCRA (40 CFR Part 255) as responsible for the development and implementation of State and solid waste management plans under section 4002(b) of RCRA (40 CFR Part 256).

§ 271.134 EPA review of State permits.

(a) The Regional Administrator may comment on permit applications and draft permits as provided in the Memorandum of Agreement under § 271.126.

(b) Where EPA indicates, in a comment, that issuance of the permit would be inconsistent with the approved State program, EPA shall include in the comment:

(1) A statement of the reasons for the comment (including the section of RCRA or regulations promulgated thereunder that support the comment); and

(2) The actions that should be taken by the State Director in order to address the comments (including the conditions which the permit would include if it were issued by the Regional Administrator).

(c) A copy of any comment shall be sent to the permit applicant by Regional Administrator.

(d) The Regional Administrator shall withdraw such a comment when satisfied that the State has met or refuted his or her concerns.

(e) Under section 3008(a)(3) of RCRA, EPA may terminate a State-issued permit in accordance with the procedures of Part 124, Subpart E, or bring an enforcement action in accordance with the procedures of 40 CFR Part 22 in the case of a violation of a State program requirement. In exercising these authorities, EPA will observe the following conditions:

(1) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the ground that permittee is not complying with a condition of that permit.

(2) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the ground that the permittee is not complying with a condition that the Regional Administrator in commenting on the permit application or draft permit stated was necessary to implement approved State program requirements, whether or not that condition was included in the final permit.

(3) The Regional Administrator may not take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit on the ground that the permittee is not complying with a condition necessary to implement approved State program requirements unless the Regional Administrator stated in commenting on the permit application or draft permit that the condition was necessary.

(4) The Regional Administrator may take action under section 7003 of RCRA against a permit holder at any time whether or not the permit holder is complying with permit conditions.

(f) Notwithstanding the above provisions, EPA shall issue permits, or portions of permits, to facilities in authorized States as necessary to implement the Hazardous and Solid Waste Amendments of 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28755, July 15, 1985]

§ 271.135 Approval process.

(a) Within 30 days of receipt of a complete program submission for Phase I or for a component of Phase II of interim authorization, the Regional Administrator shall:

(1) Issue notice in the Federal Register and in accordance with § 271.20(a)(1) of a public hearing on the State's application for interim authorization. Such public hearing will be held by EPA no earlier than 30 days after notice of the hearing, provided that if significant public interest in a hearing is not expressed, the hearing may be cancelled if a statement to this effect is included in the public notice. The State shall participate in any public hearing held by EPA.

(2) Afford the public 30 days after the notice to comment on the State's submission; and

(3) Note the availability of the State's submission for inspection and copying by the public. The State submission shall, at a minimum, be available in the main office of the lead State agency and in the EPA Regional Office.

(b) Within 90 days of the notice in the FEDERAL REGISTER required by paragraph (a)(1) of this section, the Administrator shall make a final determination whether or not to approve the State's program, taking into account any comments submitted. The Administrator will give notice of this final determination in the FEDERAL REGISTER and in accordance with § 271.20(a)(1). The notification shall include a concise statement of the reasons for this determination, and a response to significant comments received.

(c) Where a State has received interim authorization for Phase I or for Phase I and for some, but not all, components of Phase II, the same procedures required in paragraphs (a) and (b) of this section shall be used in determining whether the amended program submission meets the requirements of the Federal Program.

§ 271.136 Withdrawal of State programs.

(a) The criteria and procedures for withdrawal set forth in §§ 271.22 and 271.23 apply to this section.

(b) In addition to the criteria in § 271.22, State program approval may be withdrawn if a State which has obtained interim authorization fails to meet the schedule for or accomplish the additions or revisions of its program set forth in its authorization plan.

§ 271.137 Reversion of State programs.

(a) A State program approved for interim authorization for Phase I or for Phase I and some but not all components of Phase II shall terminate on the last day of the 6th month after the effective date of the last component of Phase II, and EPA shall administer and enforce the Federal program in the State commencing on that date if the State has failed to submit by that date an amended submission pursuant to § 271.122(c)(4). The Regional Administrator may extend this deadline for good cause.

(b) A State program approved for interim authorization for Phase I or for Phase I and for some but not all components of Phase II shall terminate and EPA shall administer and enforce the Federal program in the State if the Regional Administrator determines pursuant to § 271.135(c) that a program submission amended pursuant to § 271.122(c)(4) does not meet the requirements of the Federal program.

§ 271.138 Interim authorization under section 3006(g) of RCRA.

(a) Any State which, before the date of enactment of the Hazardous and Solid Waste Amendments of 1984, has an existing hazardous waste program which has been granted interim authorization for all components of Phase II may submit to the Administrator evidence that such existing program contains (or has been amended to include) any requirement which is substantially equivalent to a requirement referred to in § 271.1(j) of this chapter. Such States may request interim authorization under section 3006(g) of RCRA to carry out such requirement in lieu of the Administrator carrying out the Federal requirement in the State.

(b) Any such interim authorization under section 3006(g) expires on January 31, 1986, if a State program with interim authorization under section 3006(c) reverts to EPA on that date. See § 271.122(b)(2) of this chapter.

(Approved by the Office of Management and Budget under control number 2050-0037)

[50 FR 28755, July 15, 1985]

PART 272—APPROVED STATE HAZARDOUS WASTE MANAGEMENT PROGRAMS

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272.500—272.549 [Reserved]

Subpart L—Georgia

272.550—272.599 [Reserved]

Subpart M—Hawaii

272.600—272.649 [Reserved]

Subpart N—Idaho

272.650—272.699 [Reserved]

Sec.

Subpart O—Illinois

272.700—272.749 [Reserved]

Subpart P—Indiana

272.750—272.799 [Reserved]

Subpart Q—Iowa

272.800—272.849 [Reserved]

Subpart R—Kansas

272.850—272.899 [Reserved]

Subpart S—Kentucky

272.900—272.949 [Reserved]

Subpart T—Louisiana

272.950—272.999 [Reserved]

Subpart U—Maine

272.1000—272.1049 [Reserved]

Subpart V—Maryland

272.1050—272.1099 [Reserved]

Subpart W—Massachusetts

272.1100—272.1149 [Reserved]

Subpart X—Michigan

272.1150 State authorization.
272.1151 State-administered program: Final authorization.
272.1152—272.1199 [Reserved]

Subpart Y—Minnesota

272.1200 State authorization.
272.1201 State-administered program: Final authorization.
272.1202—272.1249 [Reserved]

Subpart Z—Mississippi

272.1250—272.1299 [Reserved]

Subpart AA—Missouri

272.1300 State Authorization.
272.1301 State-administered program: Final authorization.
272.1302—272.1349 [Reserved]

Subpart BB—Montana

272.1350 State authorization.
272.1351 State-Administered Program: Final authorization.
272.1352—272.1399 [Reserved]

Sec.

Subpart CC—Nebraska

272.1400—272.1449 [Reserved]

Subpart DD—Nevada

272.1450—272.1499 [Reserved]

Subpart EE—New Hampshire

272.1500—272.1549 [Reserved]

Subpart FF—New Jersey

272.1550—272.1599 [Reserved]

Subpart GG—New Mexico

272.1600—272.1649 [Reserved]

Subpart HH—New York

272.1650—272.1699 [Reserved]

Subpart II—North Carolina

272.1700—272.1749 [Reserved]

Subpart JJ—North Dakota

272.1750—272.1799 [Reserved]

Subpart KK—Ohio

272.1800 State Authorization.
272.1801 State-administered program; Final authorization.
272.1802—272.1849 [Reserved]

Subpart LL—Oklahoma

272.1850—272.1899 [Reserved]

Subpart MM—Oregon

272.1900—272.1949 [Reserved]

Subpart NN—Pennsylvania

272.1950—272.1999 [Reserved]

Subpart OO—Rhode Island

272.2000—272.2049 [Reserved]

Subpart PP—South Carolina

272.2050—272.2099 [Reserved]

Subpart QQ—South Dakota

272.2100—272.2149 [Reserved]

Subpart RR—Tennessee

272.2150—272.2199 [Reserved]

Sec.

Subpart SS—Texas

272.2200—272.2249 [Reserved]

Subpart TT—Utah

272.2250—272.2299 [Reserved]

Subpart UU—Vermont

272.2300—272.2349 [Reserved]

Subpart VV—Virginia

272.2350—272.2399 [Reserved]

Subpart WW—Washington

272.2400—272.2449 [Reserved]

Subpart XX—West Virginia

272.2450—272.2499 [Reserved]

Subpart YY—Wisconsin

272.2500 State Authorization.
272.2501 State-administered program; Final authorization.
272.2502—272.2549 [Reserved]

Subpart ZZ—Wyoming

272.2550—272.2599 [Reserved]

Subpart AAA—Guam

272.2600—272.2649 [Reserved]

Subpart BBB—Puerto Rico

272.2650—272.2699 [Reserved]

Subpart CCC—Virgin Islands

272.2700—272.2749 [Reserved]

Subpart DDD—American Samoa

272.2750—272.2799 [Reserved]

Subpart EEE—Commonwealth of the Northern Mariana Islands

272.2800—272.2849 [Reserved]

AUTHORITY: Secs. 2002(a), 3006, and 7004(b) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6912(a), 6926, and 6974(b).

SOURCE: 51 FR 3955, Jan. 31, 1986, unless otherwise noted.

Subpart A—General Provisions

§ 272.1 Purpose and scope.

(a) This part sets forth the applicable State hazardous waste management programs under section 3006(b) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6926, and 40 CFR 260.10. "State" is defined in 42 U.S.C. 1004(31) as "any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands."

(b) Material incorporated by reference is available for inspection in the Library of the appropriate EPA Regional Office, in the Library of EPA Headquarters, 401 M St. SW, Washington, D.C. and at the Office of the Federal Register Information Center, Room 8301, 1100 L Street, NW, Washington, D.C.

§§ 272.2—272.49 [Reserved]

Subpart B—Alabama

§§ 272.50—272.99 [Reserved]

Subpart C—Alaska

§§ 272.100—272.149 [Reserved]

Subpart D—Arizona

§§ 272.150—272.199 [Reserved]

Subpart E—Arkansas

§§ 272.200—272.249 [Reserved]

Subpart F—California

§§ 272.250—272.299 [Reserved]

Subpart G—Colorado

§§ 272.300—272.349 [Reserved]

Subpart H—Connecticut

§§ 272.350—272.399 [Reserved]

Subpart I—Delaware

§ 272.400 State authorization.

(a) The State of Delaware is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Act Amendments of 1984 (HSWA) (Pub. L. 98-616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR 271.9 through 271.17 and 271.21. The State's program, as administered by the Delaware Department of Natural Resources and Environmental Control, was approved by EPA pursuant to 42 U.S.C. 6926(b) and Part 271 of this chapter. EPA's approval was effective on June 22, 1984, 48 FR 23837.

(b) Delaware is not authorized to implement any HSWA requirement in lieu of EPA unless EPA has explicitly indicated its intent to do so in a FEDERAL REGISTER notice granting Delaware authorization.

(c) Delaware has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities, including conducting inspections under section 3007, 42 U.S.C. 6927, and taking enforcement actions under sections 3008, 3013, and 7003, 42 U.S.C. 6928, 6934 and 6973, as well as under other Federal laws and regulations.

(d) Delaware must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Delaware must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Delaware obtains final authorization for the revised requirements pursuant to section 3006(b) of RCRA, the newly authorized provisions will be listed in § 272.401. If Delaware obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.402.

§ 272.401 State-Administered Program: Final authorization

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Delaware has final authorization for the following elements as submitted to EPA in Delaware's program application and approved by EPA.

(a) *State Statutes and Regulations.* (1) The requirements in the Delaware statutes and regulations cited in this paragraph are incorporated by reference and made a part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation by reference was approved by the Director of the FEDERAL REGISTER January 31, 1986.

(i) 7 Delaware Code Annotated sections 6301 through 6307 and 6310 through 6317 (1983 Replacement Volume).

(ii) Delaware Department of Natural Resources and Environmental Control Regulations Governing Hazardous Waste, Parts 260 through 265, 122 and 124, Order Number 83-SW-1, July 28, 1983. (Copies are available from the Delaware Department of Natural Resources and Environmental Control, PO Box 1401, Dover, Delaware 19901.)

(2) The following statutes and regulations, although not incorporated by reference, are part of the authorized State program.

(i) 7 Delaware Code Annotated sections 6308 and 6309 (1974 and Supp. 1983).

(ii) Delaware Administrative Procedures Act, 7 Delaware Code Annotated sections 10101 through 10161 (1974 and Supp. 1983).

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region III and the Delaware Department of Natural Resources and Environmental Control, signed by the EPA Regional Administrator on December 14, 1983.

(c) *Statement of Legal Authority.* (1) "Attorney General's Statement for Final Authorization", signed by the Attorney General of Delaware of July 26, 1983.

(2) Letter from the Attorney General of Delaware to EPA, April 2, 1984.

(d) *Program Description.* The Program Description and any other materials submitted as part of the original application or as supplements thereto.

§§ 272.402—272.449 [Reserved]

Subpart J—District of Columbia

§§ 272.450—272.499 [Reserved]

Subpart K—Florida

§§ 272.500—272.549 [Reserved]

Subpart L—Georgia

§§ 272.550—272.599 [Reserved]

Subpart M—Hawaii

§§ 272.600—272.649 [Reserved]

Subpart N—Idaho

§§ 272.650—272.699 [Reserved]

Subpart O—Illinois

§§ 272.700—272.749 [Reserved]

Subpart P—Indiana

§§ 272.750—272.799 [Reserved]

Subpart Q—Iowa

§§ 272.800—272.849 [Reserved]

Subpart R—Kansas

§§ 272.850—272.899 [Reserved]

Subpart S—Kentucky

§§ 272.900—272.949 [Reserved]

Subpart T—Louisiana

§§ 272.950—272.999 [Reserved]

Subpart U—Maine

§§ 272.1000—272.1049 [Reserved]

Subpart V—Maryland

§§ 272.1050—272.1099 [Reserved]

Subpart W—Massachusetts

§§ 272.1100—272.1149 [Reserved]

Subpart X—Michigan

§ 272.1150 State authorization.

(a) The State of Michigan is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA) (Pub. L. 98-616, Nov. 8, 1984), 42 U.S.C. 6926 (c) and (g)). The Federal program for which a State may receive authorization is defined in 40 CFR Part 271. The State's program, as administered by the Michigan Department of Natural Resources, was approved by EPA, pursuant to 42 U.S.C. 6926(b) and Part 271 of this chapter. EPA's approval was published on October 16, 1986, and was effective on October 30, 1986. (See 51 FR 36804)

(b) Michigan is not authorized to implement any HSWA requirements in lieu of EPA, unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice, granting Michigan authorization.

(c) Michigan has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Michigan must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Michigan must seek final authorization for all program revisions, pursuant to section 3006(b) of RCRA but, on a temporary basis, may seek interim authorization for revisions required by HSWA, pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Michigan obtains final authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1151 of this subpart. If Michigan obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1152.

[54 FR 7421, Feb. 21, 1989]

§ 272.1151 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b): Michigan has final authorization for the following elements submitted to EPA in Michigan's program application for final authorization and approved by EPA, effective October 30, 1986. (See 51 FR 36804)

(a) State Statutes and Regulations. (1) The requirements in the Michigan statutes and regulations cited in this paragraph are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation, by reference, was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a).

(i) Michigan Compiled Laws Annotated, §§ 299.501-506, 299.521-522, 299.532-535, 299.537, and 299.539-541

(P.A. 64 of 1979 as amended by P.A. 486 of 1982, effective March 30, 1983). Copies of the State laws incorporated by reference in this paragraph are available from West Publishing Co., 50 West Kellogg Boulevard, P.O. Box 64526, St. Paul, Minnesota 55164-0526.

(ii) Michigan Administrative Code Rules 299.9101-9208(1), 299.9208(3)-9209(1), 299.9209(4)-9209(5), 299.9210(2)-9211(1)(a), 9213(1)(b), 299.9213(2)-9216, 299.9218, 299.9301-9304(1)(b), 299.9304(1)(d)-9401(5), 299.9402, 299.9404(1), 299.9404(1)(b)-9405, 299.9407, 299.9409-9410, 299.9501-9504(1), 299.9504(1)(b)-9506, 299.9508-9508(1)(g), 299.9508(1)(i)-9521(1)(b), 299.9521(2)-9522, 299.9601-9611(2)(a), 299.9611(3)-9622, 299.9623(2)-9710, 299.9801-9804, and 299.11001-11008 (1985 Annual Michigan Administrative Code Supplement). Copies of the Michigan regulations which are incorporated by reference in this paragraph are available from the Legislative Service Bureau, Billie S. Farnum Building, 125 West Allegan, Post Office Box 30036, Lansing, Michigan 48909.

(2) The following statutes and regulations, although not codified herein for enforcement purposes, are part of the authorized State program.

(i) Michigan Compiled Laws Annotated, § 24.201-328 (P.A. 306 of 1969, effective July 1, 1970), §§ 299.507, 299.514-520, 299.523-528, 299.544, and 299.546-548 (P.A. 64 of 1979 as amended by P.A. 486 of 1982, effective March 30, 1983).

(ii) Michigan Administrative Code Rules 299.9521(1)(c), 299.11101-11107 (1985 Annual Michigan Administrative Code Supplement).

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified herein for enforcement purposes.

(i) Michigan Compiled Laws Annotated, §§ 299.508-513, 299.529, 299.531, and 299.542-543 (P.A. 64 of 1979 as amended by P.A. 486 of 1982).

(ii) Michigan Administrative Code Rules 299.9208(2), 299.9209(2)-(3), 299.9210(1), 299.9211(1)(b), 299.9212(5), 299.9213(1) (c) and (d), 299.9217, 299.9219-9221, 299.9304(1)(c), 299.9401(6), 299.9403, 299.9404(1)(a), 299.9406, 299.9408, 299.9411-9412, 299.9504(1)(a), 299.9507, 299.9508(1)(h), 299.9523, 299.9611(2) (b) and (c), 299.9623(1), 299.9711, and 299.9901-9906 (1985 Annual Michigan Administrative Code Supplement).

(b) Memorandum of Agreement. The Memorandum of Agreement between EPA Region V and the Michigan Department of Natural Resources, signed by the EPA Regional Administrator on September 23, 1986, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(c) Statement of Legal Authority. "Attorney General's Statement for Final Authorization" signed by the Attorney General of Michigan on October 25, 1985, and supplements to that Statement dated June 3, 1986, and September 19, 1986, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(d) Program Description. The Program Description and the supplement thereto dated August 20, 1986, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

[54 FR 7421, Feb. 21, 1989]

§ 272.1152—272.1199 [Reserved]

Subpart Y—Minnesota

EFFECTIVE DATE NOTE: At 54 FR 20852, May 15, 1989, Subpart Y consisting of §§ 272.1200 and 272.1201 was added, effective July 14, 1989.

§ 272.1200 State authorization.

(a) The State of Minnesota is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA), (Pub. L. 98-616, Nov. 8, 1984), 42 U.S.C. 6926 (c) and (g)). The Federal program for which a State may receive authorization is defined in 40 CFR Part 271. The State's base program, and the revision to that program, as administered by the Minnesota Pollution Control Agency, were approved by EPA pursuant to 42 U.S.C. 6926(b) and 40 CFR Part 271 of this Chapter. EPA's approval of Minnesota's base program was effective on February 11, 1985, (see 49 FR 226). EPA's approval of the revision to Minnesota's base program was effective on September 18, 1987, (see 52 FR 138).

(b) Minnesota is not authorized to implement any HSWA requirements in lieu of EPA unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Minnesota authorization.

(c) Minnesota has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Minnesota must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Minnesota must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Minnesota obtains final authorization for the revised requirements pursuant to section 3006(b), the newly authorized provisions will be listed in § 272.1201 of this subpart. If Minnesota, in the future, obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1202.

[54 FR 20852, May 15, 1989]

§ 272.1201 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b):

Minnesota has final authorization for the following elements submitted to EPA in Minnesota's base program and base program revision application for final authorization as approved by EPA effective on February 11, 1985, (see 49 FR 226), and September 18, 1987, (see 52 FR 138):

(a) *State statutes and regulations.* (1) The requirements in the Minnesota statutes and regulations cited in this paragraph are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a).

(i) Minnesota Statutes, Chapters 13.03; 13.05 subdivision 9; 115.061; 115A.03; 116.06; 116.07 subdivisions 4, 4a, 4b, 5, and 8; 116.075, and 116.081 subdivisions 1 and 3 (1984). Copies of the Minnesota regulations that are incorporated by reference in this paragraph are available from State Register and Public Documents Division, Department of Administration, 117 University Avenue, St. Paul, Minnesota 55155.

(ii) Minnesota Rules, 7001.0010; 7001.0020(B); 7001.0030-7001.0150(3)(C); 7001.0150(3)(E)-7001.0200; 7001.0500-7001.0730(2); 7001.0730(4); 7045.0020-7045.0075; 7045.0120-7045.0133; 7045.0205-7045.0270(6); 7045.0275-7045.0460(1)(B); 7045.0462-7045.0508; 7045.0516-7045.0528(4); 7045.0528(6)-7045.0532(3); 7045.0532(5)-7045.0542(1)(C); and 7045.0542(1)(F)-7045.1005 (1985).

(2) Copies of the Minnesota regulations that are incorporated by reference in this paragraph are available from the State Register and Public Documents Division, Department of Administration, 117 University Avenue, St. Paul, Minnesota 55155.

Statutes, Chapters 15.0411-15.052; 115.07 subdivisions 2a, 2b, 3, 4 and 4a; 115.071, 116.091 and 116.11; and 116B.09 (1984).

(3) The following statutes and regulations are broader in scope than the Federal program, are not part of the authorized program, and are not codified herein for enforcement purposes.

(i) Minnesota Statutes, Chapter 115A and 115A.291 (1984).

(ii) Minnesota Rules, 7001.0020(A); 7001.0020 (C)-(K); 7001.0210; 7001.0730(3); 7001.0730(5); 7045.0270(7); 7045.0460(2); 7045.1010; 7045.1020; 7045.1030; and 7046.0020 (1985).

(b) *Memorandum of agreement.* The Memorandum of Agreement between EPA-Region V, and the Minnesota Pollution Control Agency, signed by the EPA Regional Administrator on October 29, 1984, and June 15, 1987, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(c) *Statements of legal authority.* The Minnesota Attorney General's Statements for final authorization signed by the Attorney General of Minnesota on July 25, 1984, and June 26, 1986, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(d) *Program description.* Program Descriptions dated June 30, 1984, and June 30, 1986, and any other materials submitted as part of, or as supplements to, the original application or revision applications are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

[54 FR 20852, May 15, 1989]

§§ 272.1202—272.1249 [Reserved]

Subpart Z—Mississippi

§§ 272.1250—272.1299 [Reserved]

Subpart AA—Missouri

§ 272.1300 State authorization.

(a) The State of Missouri is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA), (Pub. L. 98-616, Nov. 8, 1984), 42 U.S.C. 6926 (c) and (g)). The Federal program for which a State may receive authorization is defined in 40 CFR Part 271. The State's program, as administered by the Missouri Department of Natural Resources was approved by EPA pursuant to 42 U.S.C. 6926(b) and Part 271 of this Chapter. EPA's approval was effective on December 4, 1985 (50 FR 47740, November 20, 1985).

(b) Missouri is not authorized to implement any HSWA requirements in lieu of EPA unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Missouri authorization.

(c) Missouri has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Missouri must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Missouri must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Missouri obtains final authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1301 of this subpart. If Missouri obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provision will be listed in § 227.1302.

[54 FR 8193, Feb. 27, 1989]

§ 272.1301 State-administered program; Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b) Missouri has final authorization for the following elements as submitted to EPA in Missouri's program application for final authorization which was approved on November 20, 1985. Missouri submitted a program revision application on December 1, 1987, which was approved by EPA on February 27, 1989. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from the Waste Management Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102. Copies may be inspected at: U.S. EPA Headquarters Library, PM 211A, 401 M Street, SW., Washington, DC 20460. Phone: 202/382-5926; U.S. EPA Region VII, Library, (Ms. Constance McKenzie) 726 Minnesota Avenue, Kansas City, Kansas 66101, 913/236-2828 and at the Office of the Federal Register, 1100 L Street NW., Room 8401, Washington, DC.

(a) *State statutes and regulations.* The requirements in the Missouri statutes and regulations cited in this paragraph are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* The specific provisions are reference in Column 1 and refer to Chapters 260 and 610 of the Revised Statutes of Missouri (1986) and to Title 10, Division 25, Chapters 3 through 8 of the Missouri Code of State Regulations (as effective on August 1, 1987). Provisions which are approved and incorporated by reference are noted in Column 2. Those provisions which duplicate EPA procedural requirements are approved as parts of the official State program but are not needed for enforcement purposes and are not incorporated by reference. They are noted in Column 3. Those provisions which are not approved because they are broader in scope than the Federal program are noted in Column 4.

Section of law or regulation (1)	Incorporated by reference (2)	Approved but not codified (3)	Not approved (4)
STATUTORY PROVISIONS			
260.350 to 260.360(11)	X		
260.360(12)			X
260.360(13) to 260.360(18)	X		
260.365 to 260.377		X	
260.378			X
260.360-1. to 260.380-1.(9)	X		
260.380-1.(10)			X
260.380-2. to 260.385 (unnumbered first paragraph)	X		
260.385(1)			X
260.385(2) to 260.390(7)	X		
260.390(8)			X
260.390(9)	X		
260.391 to 260.395-5			X
260.395-6. to 260.395-7.(4)	X		
260.395-7.(5) to 260.395-7.(6)			X
260.395-7.(7) to 260.395-18	X		
260.396			X
260.400		X	
260.405			X
260.410 to 260.420		X	
260.423 to 260.424			X
260.425 to 260.430		X	
610.010 to 610.028		X	
REGULATORY PROVISIONS			
3.260 to 3.260(1)(A)19	X		
3.260(1)(A)20			X
3.260(1)(A)21. to 3.260(1)(A)22	X		
3.260(1)(B)			X
3.260(1)(C) to 3.260(1)(D)		X	
3.260(2)	X		
4.261 to 4.261(2)(A)4	X		
4.261(2)(A)5. to 4.261(2)(D)2			X
4.261(2)(D)3	X		
5.262 to 5.262(2)(B)1	X		
5.262(2)(B)2		X	
5.262(2)(B)3. to 5.262(2)(F)	X		
5.262(2)(G)			X

Section of law or regulation (1)	Incorporated by reference (2)	Approved but not codified (3)	Not approved (4)
6.263 to 6.263(2)(A)2	X		
6.263(2)(A)3. to 6.262(2)(A)4			X
6.263(2)(A)5. to 2.263(2)(D)	X		
7.264 to 7.264(2)(O)3	X		
7.264(2)(P)			X
7.264(2)(Q)	X		
7.265	X		
7.266 to 7.266(2)(D)	X		
7.266(2)(D)1			X
7.266(2)(D)2	X		
7.266(2)(E) to 7.266(2)(G)			X
7.270 to 7.270(2)(B)6	X		
7.270(2)(B)7. to 7.270(2)(B)8			X
7.270(2)(B)9. to 7.270(2)(B)13	X		
7.270(2)(B)14			X
7.270(2)(C) to 7.270(2)(C)1.A. (The un-numbered first sentence before the phrase noted below).	X		
in 7.270(2)(C)1.A., the phrase " * * * upon payment of a fee * * * the first year.".			X
7.270(2)(C)1.A. (The un-numbered second sentence) to 2.270.(2)(C)1.C.	X		
7.270(2)(C)1.D		X	
7.270(2)(C)2. to 270(2)(C)2.E	X		
7.270(2)(C)2.F			X
7.270(2)(D) to 7.270(2)(G)	X		
8.010		X	

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region VII and the Missouri Department of Natural Resources, signed by the EPA Regional Administrator on August 30, 1988, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(c) *Statement of Legal Authority.* (1) "Attorney General's Statement for Final Authorization," signed by the Attorney General of Missouri on June 27, 1985, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(2) "Attorney General's Statement for Final Authorization of Changes to the Federal RCRA Program," signed by the delegated Assistant Attorney General of Missouri on December 1, 1987, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(d) *Program Description.* The Program Description and any other materials submitted as part of the original application or as supplements thereto are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

[54 FR 8193, Feb. 27, 1989]

§§ 272.1302—272.1349 [Reserved]

Subpart BB—Montana

§ 272.1350 State authorization.

(a) The State of Montana is authorized to administer and enforce its hazardous waste management program in lieu of the program under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Act Amendments of 1984 (HSWA) (Pub. L. 98-616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR 271.9 through 271.17 and 271.21. The State's program, as administered by the Montana Department of Health and Environmental Services, was approved by EPA pursuant to 42 U.S.C. 6926(b) and Part 271 of this chapter. EPA's approval was effective on July 11, 1984, 48 FR 28245.

(b) Montana is not authorized to implement any HSWA requirement in lieu of EPA unless EPA has explicitly indicated its intent to do so in a FEDERAL REGISTER notice granting Montana authorization.

(c) Montana has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities, including conducting inspections under section 3007, 42 U.S.C. 6927 and to take enforcement actions under sections 3008, 3013 and 7003, 42 U.S.C. 6928, 6934 and 6973, as well as under other Federal laws and regulations.

(d) Montana must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Montana must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Montana obtains final authorization for the revised requirements pursuant to section 3006(b) of RCRA, the newly authorized provisions will be listed in § 272.1351. If Montana obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1352.

§ 272.1351 State-Administered Program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Montana has final authorization for the following elements, as submitted to EPA in Montana's program application and any subsequently approved revisions thereto.

(a) *State Statutes and Regulations.* (1) The requirements in the Montana statutes and regulations cited in this paragraph are incorporated by reference and made a part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation by reference was approved by the Director of the Office of the FEDERAL REGISTER effective January 31, 1986.

(i) Montana Hazardous Waste Act, Montana Code Annotated, sections 75-10-401 through 75-10-413 and 75-10-419 through 75-10-421 (1983).

(ii) Administrative Rules of Montana, Health and Environmental Sciences, sections 16.44.101 through 16.44.911 (1983) and amendments to sections 16.44.104, 16.44.106, 16.44.108, 16.44.109, 16.44.202, 16.44.811, 16.44.817, and 16.44.819 adopted on January 16, 1984.

(2) The following statutes and regulations, although not incorporated by reference, are part of the authorized State program.

(i) Montana Hazardous Waste Act, Montana Code Annotated, sections 75-10-414 through 75-10-418 (1983).

(ii) Montana Public Records Act, Montana Code Annotated, sections 2-6-101 through 2-6-307 (1983).

(iii) Montana Administrative Procedures Act, Montana Code Annotated, sections 2-4-101 through 2-4-705 (1983).

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region VIII and the Montana Department of Health and Environmental Services, signed by the EPA Regional Administrator on June 16, 1984.

(c) *Statement of Legal Authority.* Letter from the Attorney General of Montana to EPA, June 7, 1984, with attached Statement of Independent Legal Counsel, dated June 1, 1984.

(d) *Program Description.* The Program Description and any other materials submitted as part of the original application or as supplements thereto.

§§ 272.1352—272.1399 [Reserved]

Subpart CC—Nebraska

§§ 272.1400—272.1449 [Reserved]

Subpart DD—Nevada

§§ 272.1450—272.1499 [Reserved]

Subpart EE—New Hampshire

§§ 272.1500—272.1549 [Reserved]

Subpart FF—New Jersey

§§ 272.1550—272.1599 [Reserved]

Subpart GG—New Mexico

§§ 272.1600—272.1649 [Reserved]

Subpart HH—New York

§§ 272.1650—272.1699 [Reserved]

Subpart II—North Carolina

§§ 272.1700—272.1749 [Reserved]

Subpart JJ—North Dakota

§§ 272.1750—272.1799 [Reserved]

Subpart KK—Ohio

§ 272.1800 State authorization.

(a) The State of Ohio is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6921*et seq.*, subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA) (Pub. L. 98-616, Nov. 8, 1984), 42 U.S.C. 6926(c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR Part 271. The State's program, as administered by the Ohio Environmental Protection Agency, was approved by EPA pursuant to 42 U.S.C. 6926(b) and Part 271 of this Chapter. EPA's approval was effective on June 30, 1989. (See FEDERAL REGISTER of June 28, 1989.)

(b) Ohio is not authorized to implement any HSWA requirements in lieu of EPA unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Ohio authorization.

(c) Ohio has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under Section 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Ohio must revise its approved program to adopt new changes to the Federal Subtitle C program, in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Ohio must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(g). If Ohio obtains final authorization for the revised requirements pursuant to section 3006(b), the newly authorized provisions will be listed in 272.1801 of this Subpart. If Ohio in the future obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1802.

[54 FR 27173, June 28, 1989]

§ 272.1801 State-administered program: final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b): Ohio has final authorization for the following elements submitted to EPA in Ohio's program application for final authorization and approved by EPA effective on June 30, 1989.

(a) State Statutes and Regulations.

(1) The following Ohio regulations are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a). Ohio Administrative Code, Volume 4, Chapter 3745, Rules: 50-01; 50-03; 50-10; 50-11; 50-31 through 50-32; 50-40 through 50-44(C)(3)(j); 50-44(C)(4) through 50-44(C)(4)(k); 50-44(C)(5) through 50-44(C)(5)(h); 50-44(C)(6) through 50-44(C)(7)(i); 50-44(C)(8) through 51-

03(C)(2)(b)(i); 51-03(D) through 51-03(E); 51-04 through 51-05(D)(2); 51-05(E) through 51-05(F)(2); 51-05(G) through 51-05(I); 51-06(A)(1) through 51-06(A)(3)(g); 51-06(B) through 52-20(E); 52-20 Appendix I through 52-34(C)(2); 52-40 through 52-43; 52-50 through 53-10; 53-11(D) through 53-20(G); 53-21 through 55-99; 56-20 through 56-31; 56-50 through 56-59; 56-70 through 56-82; 57-01 through 57-14(B); 57-15 through 57-17; 57-40 through 58-40; 58-43 through 58-44; 58-45(C); 58-46(C); 58-60 through 65-01(C); 65-10 through 68-14(C); 68-15 through 68-51; 68-70 through 68-82; 69-01 through 69-30 (OAC June 30, 1988, as supplemented by 1988-1989 Ohio Monthly Record, pages 430-495 (November 1988) and 848-868 (February 1989)). Copies of the Ohio regulations that are incorporated by reference in this paragraph are available from Banks-Baldwin Law Publishing Company, P.O. Box 1974, University Center, Cleveland, Ohio 44106-8697, Customer Service Department.

(2) The following statutory provisions and regulations concerning State enforcement, although not codified herein for enforcement purposes, are part of the authorized State program:

(i) Ohio Revised Code, Title 1, Chapter 119, Sections: 01 through 06.1, and 07 through 13; Ohio Revised Code, Title 1, Chapter 149, Sections 011, 43, and 44 (Page 1987); Ohio Revised Code, Title 37, Chapter 3734, Sections: 01 through 05, 07, 09 through 14.1, 16 through 17, 20 through 22, and 31 through 99 (Page, 1987).

(ii) Ohio Administrative Code, Volume 4, Chapter 3745, Rules: 49-031, 50-21 through 50-30; and 51-03(F) (OAC June 30, 1988, as supplemented by 1988-1989 Ohio Monthly Record, pages 430-495 (November 1988) and 848-868 (February 1989)).

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified for enforcement purposes.

(i) Ohio Revised Code, Title 37, Chapter 3734, Sections: 06, 08, 18 through 19, and 23 through 30 (Page, 1987).

(ii) Ohio Administrative Code, Volume 4, Chapter 3745, Rules: 50-33 through 50-37, and 53-11(A) through 53-11(C) (OAC June 30, 1988).

(b) Memorandum of Agreement. The Memorandum of Agreement between EPA Region V and the Ohio Environmental Protection Agency signed by the EPA Regional Administrator on March 6, 1989, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA. 42 U.S.C. 6921 *et seq.*

(c) Statement of Legal Authority. (1) "Attorney General's Statement for Final Authorization," signed by the Attorney General of Ohio on July 1, 1985, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(2) Supplemental "Attorney General's Statements for Final Authorization," and addenda to such Statements signed by the Attorney General of Ohio on December 30, 1988, and February 24, 1989, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(d) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto are codified as part of the authorized hazardous waste management program under Subtitle of RCRA, 42 U.S.C. 6921 et seq.

[54 FR 27173, June 28, 1989]

§§ 272.1802—272.1849 [Reserved]

Subpart LL—Oklahoma

§§ 272.1850—272.1899 [Reserved]

Subpart MM—Oregon

§§ 272.1900—272.1949 [Reserved]

Subpart NN—Pennsylvania

§§ 272.1950—272.1999 [Reserved]

Subpart OO—Rhode Island

§§ 272.2000—272.2049 [Reserved]

Subpart PP—South Carolina

§§ 272.2050—272.2099 [Reserved]

Subpart QQ—South Dakota

§§ 272.2100—272.2149 [Reserved]

Subpart RR—Tennessee

§§ 272.2150—272.2199 [Reserved]

Subpart SS—Texas

§§ 272.2200—272.2249 [Reserved]

Subpart TT—Utah

§§ 272.2250—272.2299 [Reserved]

Subpart UU—Vermont

§§ 272.2300—272.2349 [Reserved]

Subpart VV—Virginia

§§ 272.2350—272.2399 [Reserved]

Subpart WW—Washington

§§ 272.2400—272.2449 [Reserved]

Subpart XX—West Virginia

§§ 272.2450—272.2499 [Reserved]

Subpart YY—Wisconsin

§ 272.2500 State authorization.

(a) The State of Wisconsin is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA), (Pub. L. 98-616, Nov. 8, 1984), 42 U.S.C. 6926 (c) and (g)). The Federal program for which a State may receive authorization is defined in 40 CFR Part 271. The State's program, as administered by the Wisconsin Department of Natural Resources was approved by EPA pursuant to 42 U.S.C. 6926(b) and Part 271 of this Chapter. EPA's approval was effective on January 31, 1986 (see 51 FR 3783).

(b) Wisconsin is not authorized to implement any HSWA requirements in lieu of EPA unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Wisconsin authorization.

(c) Wisconsin has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Wisconsin must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR Part 271, Subpart A. Wisconsin must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Wisconsin obtains final authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in 272.2501 of this Subpart. If Wisconsin obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in 272.2502.

[54 FR 7423, Feb. 21, 1989]

§ 272.2501 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b): Wisconsin has final authorization for the following elements submitted to EPA in Wisconsin's program application for final authorization and approved by EPA effective on January 31, 1986.

(a) *State Statutes and Regulations.* (1) The following Wisconsin statutory provisions and regulations are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.* This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a).

(i) Wisconsin Statutes, Volume 3, Sections: 144.01; 144.43-433; 144.44 (except 144.44(4)(a)); 144.441(1)-(2); 144.441(3) (b), (d), (f), and (g); 144.441(4) (a) and (c)-(g); 144.441(5) (b)-(d); 144.441(6); 144.442 (1), (4)-(11); 144.443; 144.444; 144.60-144.63; and, 144.64 (2) and (3) (except for 144.64(2)(e)(1)) (1985-86). Copies of the Wisconsin statutes that are incorporated by reference in this paragraph are available from the Revisor of Statutes, Suite 904, 30 West Mifflin Street, Madison, Wisconsin 53703.

(ii) Wisconsin Administrative Code, Volume 12, Sections NR: 181.01-181.02; 181.04-181.05; 181.06(3)-181.07; 181.09; 181.11-181.12(3); 181.12(4)(b)-181.27; 181.31(2)-181.47; 181.49-181.54; 181.55(2); 181.55(4)-181.55(10); Appendix 1; and Appendix 2 (effective July 1, 1985). Copies of the Wisconsin regulations that are incorporated by reference in this paragraph are available from the Revisor of Statutes, Suite 904, 30 West Mifflin Street, Madison, Wisconsin 53703.

(2) The following statutory provisions concerning State enforcement, although not codified herein, are part of the authorized State program. Wisconsin Statutes, Volume 1, Sections: 19.21; 19.31: Wisconsin Statutes, Volume 3, Sections: 144.69-144.72; 144.73-144.74; 144.76 (2) and (3): Wisconsin Statutes, Volume 4, Sections: 227.07; 227.09; 227.14; and Wisconsin Statutes, Volume 5, Section 803.09 (1985-86).

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified herein for enforcement purposes.

(i) Wisconsin Statutes, Volume 3, Sections: 144.434-144.439; 144.41; 144.44(4)(a); 144.441(3) (a) (c) and (e); 144.441(4) (b) and (h); 144.441(5)(a); 144.441(7); 144.442 (2) and (3); 144.445-144.48; 144.64(1); 144.64(2)(e)(1); 144.64(4); 144.645-144.68; 144.725; 144.75-144.76(1); and 144.76(4)-144.799(6) (1985-86).

(ii) Wisconsin Administrative Code, Volume 12, Sections NR: 181.06 (1) and (2); 181.08; 181.12(4)(a); 181.31(1); 181.48; and 181.55 (1) and (3) (effective July 1, 1985).

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region V and the Wisconsin Department of Natural Resources, signed by the EPA Regional Administrator on January 17, 1986, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(c) *Statement of Legal Authority.* (1) "Attorney General's Statement for Final Authorization" signed by the Attorney General of Wisconsin on July 23, 1985 is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(2) Supplemental "Attorney General's Statement for Final Authorization", signed by the Attorney General of Wisconsin on December 27, 1985, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(d) *Program Description.* The Program Description and any other materials submitted as part of the original application or as supplements thereto are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

[54 FR 7424, Feb. 21, 1989]

§§ 272.2502—272.2549 [Reserved]

Subpart ZZ—Wyoming

§§ 272.2550—272.2599 [Reserved]

Subpart AAA—Guam

§§ 272.2600—272.2649 [Reserved]

Subpart BBB—Puerto Rico

§§ 272.2650—272.2699 [Reserved]

Subpart CCC—Virgin Islands

§§ 272.2700—272.2749 [Reserved]

Subpart DDD—American Samoa

§§ 272.2750—272.2799 [Reserved]

Subpart EEE—Commonwealth of the Northern Mariana Islands

§§ 272.2800—272.2849 [Reserved]

PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)

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280.11 Interim prohibition for deferred UST systems.
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280.21 Upgrading of existing UST systems.
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Subpart D—Release Detection

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280.112 Suspension of enforcement. [Reserved]
Appendix I to Part 280—Notification for Underground Storage Tanks (Form).
Appendix II to Part 280—List of Agencies Designated to Receive Notifications.
Appendix III to Part 280—Statement for Shipping Tickets and Invoices.

Authority: 42 U.S.C. 6912, 6991, 6991(a), 6991(b), 6991(c), 6991(d), 6991(e), 6991(f), 6991(h).

Source: 53 FR 37194, Sep. 23, 1988, unless otherwise noted.

Subpart A—Program Scope and Interim Prohibition

§ 280.10 Applicability.

(a) The requirements of this part apply to all owners and operators of an UST system as defined in § 280.12 except as otherwise provided in paragraphs (b), (c), and (d) of this section. Any UST system listed in paragraph (c) of this section must meet the requirements of § 280.11.

(b) The following UST systems are excluded from the requirements of this part:

(1) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act.

(3) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(4) Any UST system whose capacity is 110 gallons or less.

(5) Any UST system that contains a *de minimis* concentration of regulated substances.

(6) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(c) *Deferrals.* Subparts B, C, D, E and G do not apply to any of the following types of UST systems:

(1) Wastewater treatment tank systems;

(2) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following);

(3) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR Part 50, Appendix A;

(4) Airport hydrant fuel distribution systems; and

(5) UST systems with field-constructed tanks.

(d) *Deferrals.* Subpart D does not apply to any UST system that stores fuel solely for use by emergency power generators.

§ 280.11 Interim prohibition for deferred UST systems.

(a) No person may install an UST system listed in § 280.10(c) for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

(1) Will prevent releases due to corrosion or structural failure for the operational life of the UST system;

(2) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(3) Is constructed or lined with material that is compatible with the stored substance.

(b) Notwithstanding paragraph (a) of this section, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators must maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

NOTE: The National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," may be used as guidance for complying with paragraph (b) of this section.

§ 280.12 Definitions.

"Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.

"Ancillary equipment" means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

"Belowground release" means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

"Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials.

"Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

"Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

"Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

"Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

"Consumptive use" with respect to heating oil means consumed on the premises.

"Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

"Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

"Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

"Excavation zone" means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

"Existing tank system" means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:

(a) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,

(b)(1) Either a continuous on-site physical construction or installation program has begun; or,

(2) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction at the site or installation of the tank system to be completed within a reasonable time.

"Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations.

"Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

"Free product" refers to a regulated substance that is present as a nonaqueous phase liquid (e.g., liquid not dissolved in water.)

"Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

"Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

"Heating oil" means petroleum that is No. 1, No. 2, No. 4—light, No. 4—heavy, No. 5—light, No. 5—heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

"Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

"Implementing agency" means EPA, or, in the case of a state with a program approved under section 9004 (or pursuant to a memorandum of agreement with EPA), the designated state or local agency responsible for carrying out an approved UST program.

"Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

"Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product.

"Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

"New tank system" means a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988. (See also "Existing Tank System.")

"Noncommercial purposes" with respect to motor fuel means not for resale.

"On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

"Operational life" refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under Subpart G.

"Operator" means any person in control of, or having responsibility for, the daily operation of the UST system.

"Overfill release" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

"Owner" means:

(a) In the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and

(b) In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use.

"Person" means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government.

"Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with *de minimis* quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

"Pipe" or "Piping" means a hollow cylinder or tubular conduit that is constructed of non-earthen materials.

"Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

"Regulated substance" means:

(a) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and

(b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil though processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

"Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into ground water, surface water or subsurface soils.

"Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

"Repair" means to restore a tank or UST system component that has caused a release of product from the UST system.

"Residential tank" is a tank located on property used primarily for dwelling purposes.

"SARA" means the Superfund Amendments and Reauthorization Act of 1986.

"Septic tank" is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

"Storm-water or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

"Surface impoundment" is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.

"Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.

"Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

"Underground release" means any belowground release.

"Underground storage tank" or "UST" means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines) regulated under:

(1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, *et seq.*), or

(2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, *et seq.*), or

(3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in paragraph (d)(1) or (d)(2) of this definition;

(e) Surface impoundment, pit, pond, or lagoon;

(f) Storm-water or wastewater collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition.

"Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.

"UST system" or "Tank system" means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

"Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

Subpart B—UST Systems: Design, Construction, Installation and Notification

§ 280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements.

(a) *Tanks.* Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The tank is constructed of fiberglass-reinforced plastic; or

NOTE: The following industry codes may be used to comply with paragraph (a)(1) of this section: Underwriters Laboratories Standard 1316, "Standard for Glass- Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; Underwriter's Laboratories of Canada CAN4-S615-M83, "Standard for Reinforced Plastic Underground Tanks for Petroleum Products"; or American Society of Testing and Materials Standard D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or according to guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute "Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks";

(B) Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks";

(C) Underwriters Laboratories of Canada CAN4-S603-M85, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and CAN4-G03.1-M85, "Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids," and CAN4-S631-M84, "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems"; or

(D) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and Underwriters Laboratories Standard 58, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(3) The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

NOTE: The following industry codes may be used to comply with paragraph (a)(3) of this section: Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks," or the Association for Composite Tanks ACT-100, "Specification for the Fabrication of FRP Clad Underground Storage Tanks."

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraphs (a)(4)(i) for the remaining life of the tank; or

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a) (1) through (4) of this section.

(b) *Piping.* The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The piping is constructed of fiberglass-reinforced plastic; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(1) of this section:

(A) Underwriters Laboratories Subject 971, "UL Listed Non-Metal Pipe";

(B) Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas";

(C) Underwriters Laboratories of Canada Guide ULC-107, "Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids"; and

(D) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."

(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(2) of this section:

(A) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code";

(B) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems";

(C) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(D) National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems."

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

NOTE: National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code"; and National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems," may be used to comply with paragraph (b)(3) of this section.

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b) (1) through (3) of this section.

(c) *Spill and overfill prevention equipment.* (1) Except as provided in paragraph (c)(2) of this section, to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1) (i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(d) *Installation.* All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

NOTE: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of paragraph (d) of this section:

(i) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System"; or

(ii) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or

(iii) American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."

(e) *Certification of installation.* All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with § 280.22.

(1) The installer has been certified by the tank and piping manufacturers; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or

(4) The installation has been inspected and approved by the implementing agency; or

(5) All work listed in the manufacturer's installation checklists has been completed; or

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

§ 280.21 Upgrading of existing UST systems.

(a) *Alternatives allowed.* Not later than December 22, 1998, all existing UST systems must comply with one of the following requirements:

(1) New UST system performance standards under § 280.20;

(2) The upgrading requirements in paragraphs (b) through (d) of this section; or

(3) Closure requirements under Subpart G of this part, including applicable requirements for corrective action under Subpart F.

(b) *Tank upgrading requirements.* Steel tanks must be upgraded to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:

(1) *Interior lining.* A tank may be upgraded by internal lining if:

(i) The lining is installed in accordance with the requirements of § 280.33, and

(ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications.

(2) *Cathodic protection.* A tank may be upgraded by cathodic protection if the cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv) and the integrity of the tank is ensured using one of the following methods:

(i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system; or

(ii) The tank has been installed for less than 10 years and is monitored monthly for releases in accordance with § 280.43 (d) through (h); or

(iii) The tank has been installed for less than 10 years and is assessed for corrosion holes by conducting two (2) tightness tests that meet the requirements of § 280.43(c). The first tightness test must be conducted prior to installing the cathodic protection system. The second tightness test must be conducted between three (3) and six (6) months following the first operation of the cathodic protection system; or

(iv) The tank is assessed for corrosion holes by a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (b)(2) (i) through (iii) of this section.

(3) *Internal lining combined with cathodic protection.* A tank may be upgraded by both internal lining and cathodic protection if:

(i) The lining is installed in accordance with the requirements of § 280.33; and

(ii) The cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv).

NOTE: The following codes and standards may be used to comply with this section:

(A) American Petroleum Institute Publication 1631, "Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks";

(B) National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection";

(C) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems"; and

(D) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems."

(c) *Piping upgrading requirements.* Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and must meet the requirements of § 280.20(b)(2) (ii), (iii), and (iv).

NOTE: The codes and standards listed in the note following § 280.20(b)(2) may be used to comply with this requirement.

(d) *Spill and overfill prevention equipment.* To prevent spilling and overfilling associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in § 280.20(c).

§ 280.22 Notification requirements.

(a) Any owner who brings an underground storage tank system into use after May 8, 1986, must within 30 days of bringing such tank into use, submit, in the form prescribed in Appendix I of this part, a notice of existence of such tank system to the state or local agency or department designated in Appendix II of this part to receive such notice.

NOTE: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the designated state or local agency in accordance with the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98-616, on a form published by EPA on November 8, 1985 (50 FR 46602) unless notice was given pursuant to section 103(c) of CERCLA. Owners and operators who have not complied with the notification requirements may use portions I through VI of the notification form contained in Appendix I of this part.

(b) In states where state law, regulations, or procedures require owners to use forms that differ from those set forth in Appendix I of this part to fulfill the requirements of this section, the state forms may be submitted in lieu of the forms set forth in Appendix I of this part. If a state requires that its form be used in lieu of the form presented in this regulation, such form must meet the requirements of section 9002.

(c) Owners required to submit notices under paragraph (a) of this section must provide notices to the appropriate agencies or departments identified in Appendix II of this part for each tank they own. Owners may provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of operation must file a separate notification form for each separate place of operation.

(d) Notices required to be submitted under paragraph (a) of this section must provide all of the information in sections I through VI of the prescribed form (or appropriate state form) for each tank for which notice must be given. Notices for tanks installed after December 22, 1988 must also provide all of the information in section VII of the prescribed form (or appropriate state form) for each tank for which notice must be given.

(e) All owners and operators of new UST systems must certify in the notification form compliance with the following requirements:

(1) Installation of tanks and piping under § 280.20(e);

(2) Cathodic protection of steel tanks and piping under § 280.20 (a) and (b);

(3) Financial responsibility under Subpart H of this part; and

(4) Release detection under §§ 280.41 and 280.42.

(f) All owners and operators of new UST systems must ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in § 280.20(d).

(g) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank must notify the purchaser of such tank of the owner's notification obligations under paragraph (a) of this section. The form provided in Appendix III of this part may be used to comply with this requirement.

Subpart C—General Operating Requirements

§ 280.30 Spill and overfill control.

(a) Owners and operators must ensure that releases due to spilling or overfilling do not occur. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

NOTE: The transfer procedures described in National Fire Protection Association Publication 385 may be used to comply with paragraph (a) of this section. Further guidance on spill and overfill prevention appears in American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets," and National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code."

(b) The owner and operator must report, investigate, and clean up any spills and overfills in accordance with § 280.53.

§ 280.31 Operation and maintenance of corrosion protection.

All owners and operators of steel UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the UST system is used to store regulated substances:

(a) All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground.

(b) All UST systems equipped with cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) *Frequency.* All cathodic protection systems must be tested within 6 months of installation and at least every 3 years thereafter or according to another reasonable time frame established by the implementing agency; and

(2) *Inspection criteria.* The criteria that are used to determine that cathodic protection is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association.

NOTE: National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," may be used to comply with paragraph (b)(2) of this section.

(c) UST systems with impressed current cathodic protection systems must also be inspected every 60 days to ensure the equipment is running properly.

(d) For UST systems using cathodic protection, records of the operation of the cathodic protection must be maintained (in accordance with § 280.34) to demonstrate compliance with the performance standards in this section. These records must provide the following:

(1) The results of the last three inspections required in paragraph (c) of this section; and

(2) The results of testing from the last two inspections required in paragraph (b) of this section.

§ 280.32 Compatibility.

Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

NOTE: Owners and operators storing alcohol blends may use the following codes to comply with the requirements of this section:

(a) American Petroleum Institute Publication 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations"; and

(b) American Petroleum Institute Publication 1627, "Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations."

§ 280.33 Repairs allowed.

Owners and operators of UST systems must ensure that repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

NOTE: The following codes and standards may be used to comply with paragraph (a) of this section: National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code"; American Petroleum Institute Publication 2200, "Repairing Crude Oil, Liquified Petroleum Gas, and Product Pipelines"; American Petroleum Institute Publication 1631, "Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks"; and National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection."

(b) Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Fiberglass pipes and fittings may be repaired in accordance with the manufacturer's specifications.

(d) Repaired tanks and piping must be tightness tested in accordance with § 280.43(c) and § 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d) (1) through (3), of this section:

(1) The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or

(2) The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in § 280.43 (d) through (h); or

(3) Another test method is used that is determined by the implementing agency to be no less protective of human health and the environment than those listed above.

(e) Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with § 280.31 (b) and (c) to ensure that it is operating properly.

(f) UST system owners and operators must maintain records of each repair for the remaining operating life of the UST system that demonstrate compliance with the requirements of this section.

§ 280.34 Reporting and recordkeeping.

Owners and operators of UST systems must cooperate fully with inspections, monitoring and testing conducted by the implementing agency, as well as requests for document submission, testing, and monitoring by the owner or operator pursuant to section 9005 of Subtitle I of the Resource Conservation and Recovery Act, as amended.

(a) *Reporting.* Owners and operators must submit the following information to the implementing agency:

(1) Notification for all UST systems (§ 280.22), which includes certification of installation for new UST systems (§ 280.20(e)),

(2) Reports of all releases including suspected releases (§ 280.50), spills and

overfills (§ 280.53), and confirmed releases (§ 280.61);

(3) Corrective actions planned or taken including initial abatement measures (§ 280.62), initial site characterization (§ 280.63), free product removal (§ 280.64), investigation of soil and ground-water cleanup (§ 280.65), and corrective action plan (§ 280.66); and

(4) A notification before permanent closure or change-in-service (§ 280.71).

(b) *Recordkeeping.* Owners and operators must maintain the following information:

(1) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used (§ 280.20(a)(4); § 280.20(b)(3)).

(2) Documentation of operation of corrosion protection equipment (§ 280.31);

(3) Documentation of UST system repairs (§ 280.33(f));

(4) Recent compliance with release detection requirements (§ 280.45); and

(5) Results of the site investigation conducted at permanent closure (§ 280.74).

(c) *Availability and Maintenance of Records.* Owners and operators must keep the records required either:

(1) At the UST site and immediately available for inspection by the implementing agency; or

(2) At a readily available alternative site and be provided for inspection to the implementing agency upon request.

(3) In the case of permanent closure records required under § 280.74, owners and operators are also provided with the additional alternative of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site as indicated above.

NOTE: The recordkeeping and reporting requirements in this section have been approved by the Office of Management and Budget and have been assigned OMB Control No. 2050-0068.

Subpart D—Release Detection

§ 280.40 General requirements for all UST systems.

(a) Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;

(2) Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition; and

(3) Meets the performance requirements in § 280.43 or 280.44, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods used after December 22, 1990 except for methods permanently installed prior to that date, must be capable of detecting the leak rate or quantity specified for that method in § 280.43 (b), (c), and (d) or 280.44 (a) and (b) with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(b) When a release detection method operated in accordance with the performance standards in § 280.43 and § 280.44 indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with Subpart E.

(c) Owners and operators of all UST systems must comply with the release detection requirements of this subpart by December 22 of the year listed in the following table:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION

Year system was installed	Year when release detection is required (by December 22 of the year indicated)				
	1989	1990	1991	1992	1993
Before 1965 or date unknown.	RD	P			
1965–69		P/RD			
1970–74		P	RD		
1975–79		P		RD	
1980–88		P			RD
New tanks (after December 22) immediately upon installation.					

P = Must begin release detection for all pressurized piping in accordance with § 280.41(b)(1) and § 280.42(b)(4).

RD = Must begin release detection for tanks and suction piping in accordance with § 280.41(a), § 280.41(b)(2), and § 280.42.

(d) Any existing UST system that cannot apply a method of release detection that complies with the requirements of this subpart must complete the closure procedures in Subpart G by the date on which release detection is required for that UST system under paragraph (c) of this section.

§ 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(a) *Tanks.* Tanks must be monitored at least every 30 days for releases using one of the methods listed in § 280.43 (d) through (h) except that:

(1) UST systems that meet the performance standards in § 280.20 or § 280.21, and the monthly inventory control requirements in § 280.43 (a) or (b), may use tank tightness testing (conducted in accordance with § 280.43(c)) at least every 5 years until December 22, 1998, or until 10 years after the tank is installed or upgraded under § 280.21(b), whichever is later;

(2) UST systems that do not meet the performance standards in § 280.20 or § 280.21 may use monthly inventory controls (conducted in accordance with § 280.43(a) or (b)) and annual tank tightness testing (conducted in accordance with § 280.43(c)) until December 22, 1998 when the tank must be upgraded under § 280.21 or permanently closed under § 280.71; and

(3) Tanks with capacity of 550 gallons or less may use weekly tank gauging (conducted in accordance with § 280.43(b)).

(b) *Piping.* Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

(1) *Pressurized piping.* Underground piping that conveys regulated substances under pressure must:

(i) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and

(ii) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).

(2) *Suction piping.* Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conduct in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:

(i) The below-grade piping operates at less than atmospheric pressure;

(ii) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(iii) Only one check valve is included in each suction line;

(iv) The check valve is located directly below and as close as practical to the suction pump; and

(v) A method is provided that allows compliance with paragraphs (b)(2) (ii)-(iv) of this section to be readily determined.

§ 280.42 Requirements for hazardous substance UST systems.

Owners and operators of hazardous substance UST systems must provide release detection that meets the following requirements:

(a) Release detection at existing UST systems must meet the requirements for petroleum UST systems in § 280.41. By December 22, 1998, all existing hazardous substance UST systems must meet the release detection requirements for new systems in paragraph (b) of this section.

(b) Release detection at new hazardous substance UST systems must meet the following requirements:

(1) Secondary containment systems must be designed, constructed and installed to:

(i) Contain regulated substances released from the tank system until they are detected and removed;

(ii) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and

(iii) Be checked for evidence of a release at least every 30 days.

NOTE.—The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with these requirements.

(2) Double-walled tanks must be designed, constructed, and installed to:

(i) Contain a release from any portion of the inner tank within the outer wall; and

(ii) Detect the failure of the inner wall.

(3) External liners (including vaults) must be designed, constructed, and installed to:

(i) Contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Prevent the interference of precipitation or ground-water intrusion with the ability to contain or detect a release of regulated substances; and

(iii) Surround the tank completely (i.e., it is capable of preventing lateral as well as vertical migration of regulated substances).

(4) Underground piping must be equipped with secondary containment that satisfies the requirements of paragraph (b)(1) of this section (e.g., trench liners, jacketing of double-walled pipe). In addition, underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector in accordance with § 280.44(a).

(5) Other methods of release detection may be used if owners and operators:

(i) Demonstrate to the implementing agency that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in §§ 280.43(b) through (h) can detect a release of petroleum;

(ii) Provide information to the implementing agency on effective corrective action technologies, health risks, and chemical and physical properties of the stored substance, and the characteristics of the UST site; and,

(iii) Obtain approval from the implementing agency to use the alternate release detection method before the installation and operation of the new UST system.

§ 280.43 Methods of release detection for tanks.

Each method of release detection for tanks used to meet the requirements of § 280.41 must be conducted in accordance with the following:

(a) *Inventory control.* Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

(1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;

(2) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;

(3) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

(4) Deliveries are made through a drop tube that extends to within one foot of the tank bottom;

(5) Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and

(6) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

NOTE: Practices described in the American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of this paragraph.

(b) *Manual tank gauging.* Manual tank gauging must meet the following requirements:

(1) Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank;

(2) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;

(3) The equipment used is capable of measuring the level of product over

the full range of the tank's height to the nearest one-eighth of an inch;

(4) A leak is suspected and subject to the requirements of Subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

Nominal tank capacity	Weekly standard (one test)	Monthly standard (average of four tests)
550 gallons or less.	10 gallons	5 gallons.
551-1,000 gallons.	13 gallons	7 gallons.
1,001-2,000 gallons.	26 gallons	13 gallons.

(5) Only tanks of 550 gallons or less nominal capacity may use this as the sole method of release detection. Tanks of 551 to 2,000 gallons may use the method in place of manual inventory control in § 280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this subpart.

(c) *Tank tightness testing.* Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(d) *Automatic tank gauging.* Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

(1) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product; and

(2) Inventory control (or another test of equivalent performance) is conducted in accordance with the requirements of § 280.43(a).

(e) *Vapor monitoring.* Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

(1) The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(2) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(3) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

(4) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (e) (1) through (4) of this section and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product; and

(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(f) *Ground-water monitoring.* Testing or monitoring for liquids on the ground water must meet the following requirements:

(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(2) Ground water is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(3) The slotted portion of the monitoring well casing must be designed to prevent migration of natural soils or

filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low ground-water conditions;

(4) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(5) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(6) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells;

(7) Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (f) (1) through (5) of this section and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product; and

(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) *Interstitial monitoring.* Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

(1) For double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product;

NOTE: The provisions outlined in the Steel Tank Institute's "Standard for Dual Wall Underground Storage Tanks" may be used as guidance for aspects of the design and construction of underground steel double-walled tanks.

(2) For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 10^{-6} cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(iii) For cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the ground water and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and,

(vi) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(3) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(h) *Other methods.* Any other type of release detection method, or combination of methods, can be used if:

(1) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(2) The implementing agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (c) through (h) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use to ensure the

protection of human health and the environment.

§ 280.44 Methods of release detection for piping.

Each method of release detection for piping used to meet the requirements of § 280.41 must be conducted in accordance with the following:

(a) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements.

(b) *Line tightness testing.* A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) *Applicable tank methods.* Any of the methods in § 280.43 (e) through (h) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

§ 280.45 Release detection recordkeeping.

All UST system owners and operators must maintain records in accordance with § 280.34 demonstrating compliance with all applicable requirements of this Subpart. These records must include the following:

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation;

(b) The results of any sampling, testing, or monitoring must be maintained for at least 1 year, or for another reasonable period of time determined by the implementing agency, except that the results of tank tightness testing conducted in accordance with § 280.43(c) must be retained until the next test is conducted; and

(c) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site must be maintained for at least one year after the servicing work is completed, or for another reasonable time period determined by the implementing agency. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be retained for 5 years from the date of installation.

Subpart E—Release Reporting, Investigation, and Confirmation

§ 280.50 Reporting of suspected releases.

Owners and operators of UST systems must report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and follow the procedures in § 280.52 for any of the following conditions:

(a) The discovery by owners and operators or others of released regulated substances at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface water).

(b) Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, or an unexplained presence of water in the tank), unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced; and,

(c) Monitoring results from a release detection method required under § 280.41 and § 280.42 that indicate a release may have occurred unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result; or

(2) In the case of inventory control, a second month of data does not confirm the initial result.

§ 280.51 Investigation due to off-site impacts.

When required by the implementing agency, owners and operators of UST systems must follow the procedures in § 280.52 to determine if the UST system is the source of off-site impacts. These impacts include the discovery of regulated substances (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface and drinking waters) that has been observed by the implementing agency or brought to its attention by another party.

§ 280.52 Release investigation and confirmation steps.

Unless corrective action is initiated in accordance with Subpart F, owners and operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under § 280.50 within 7 days, or another reasonable time period specified by the implementing agency, using either the following steps or another procedure approved by the implementing agency:

(a) *System test.* Owners and operators must conduct tests (according to the requirements for tightness testing in § 280.43(c) and § 280.44(b)) that determine whether a leak exists in that portion of the tank that routinely contains product, or the attached delivery piping, or both.

(1) Owners and operators must repair, replace or upgrade the UST system, and begin corrective action in accordance with Subpart F if the test results for the system, tank, or delivery piping indicate that a leak exists.

(2) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.

(3) Owners and operators must conduct a site check as described in paragraph (b) of this section if the test results for the system, tank, and delivery piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release.

(b) *Site check.* Owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth of ground water, and other factors appropriate for identifying the presence and source of the release.

(1) If the test results for the excavation zone or the UST site indicate that a release has occurred, owners and operators must begin corrective action in accordance with Subpart F;

(2) If the test results for the excavation zone or the UST site do not indicate that a release has occurred, further investigation is not required.

§ 280.53 Reporting and cleanup of spills and overfills.

(a) Owners and operators of UST systems must contain and immediately clean up a spill or overfill and report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and begin corrective action in accordance with Subpart F in the following cases:

(1) Spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons or another reasonable amount specified by the implementing agency, or that causes a sheen on nearby surface water; and

(2) Spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR Part 302).

(b) Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons or another reasonable amount specified by the implementing agency, and a spill or overfill of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, or another reasonable time period established by the implementing agency, owners and operators must immediately notify the implementing agency.

NOTE: Pursuant to §§ 302.6 and 355.40, a release of a hazardous substance equal to or in excess of its reportable quantity must also be reported immediately (rather than within 24 hours) to the National Response Center under sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and to appropriate state and local authorities under Title III of the Superfund Amendments and Reauthorization Act of 1986.

Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

§ 280.60 General.

Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this subpart except for USTs excluded under § 280.10(b) and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

§ 280.61 Initial response.

Upon confirmation of a release in accordance with § 280.52 or after a release from the UST system is identified in any other manner, owners and operators must perform the following initial response actions within 24 hours of a release or within another reasonable period of time determined by the implementing agency:

(a) Report the release to the implementing agency (e.g., by telephone or electronic mail);

(b) Take immediate action to prevent any further release of the regulated substance into the environment; and

(c) Identify and mitigate fire, explosion, and vapor hazards.

§ 280.62 Initial abatement measures and site check.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must perform the following abatement measures:

(1) Remove as much of the regulated substance from the UST system as is necessary to prevent further release to the environment;

(2) Visually inspect any aboveground releases or exposed belowground releases and prevent further migration of the released substance into surrounding soils and ground water;

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements);

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable State and local requirements;

(5) Measure for the presence of a release where contamination is most likely to be present at the UST site, unless the presence and source of the release have been confirmed in accordance with the site check required by § 280.52(b) or the closure site assessment of § 280.72(a). In selecting sample types, sample locations, and measurement methods, the owner and operator must consider the nature of the stored substance, the type of backfill, depth to ground water and other factors as appropriate for identifying the presence and source of the release; and

(6) Investigate to determine the possible presence of free product, and begin free product removal as soon as practicable and in accordance with § 280.64.

(b) Within 20 days after release confirmation, or within another reasonable period of time determined by the implementing agency, owners and operators must submit a report to the implementing agency summarizing the initial abatement steps taken under paragraph (a) of this section and any resulting information or data.

§ 280.63 Initial site characterization.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must assemble information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in § 280.60 and § 280.61. This information must include, but is not necessarily limited to the following:

(1) Data on the nature and estimated quantity of release;

(2) Data from available sources and/or site investigations concerning the following factors: surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, and land use;

(3) Results of the site check required under § 280.62(a)(5); and

(4) Results of the free product investigations required under § 280.62(a)(6), to be used by owners and operators to determine whether free product must be recovered under § 280.64.

(b) Within 45 days of release confirmation or another reasonable period of time determined by the implementing agency, owners and operators must submit the information collected in compliance with paragraph (a) of this section to the implementing agency in a manner that demonstrates its applicability and technical adequacy, or in a format and according to the schedule required by the implementing agency.

§ 280.64 Free product removal.

At sites where investigations under § 280.62(a)(6) indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency while continuing, as necessary, any actions initiated under §§ 280.61 through 280.63, or preparing for actions required under §§ 280.65 through 280.66. In meeting the requirements of this section, owners and operators must:

(a) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, State and Federal regulations;

(b) Use abatement of free product migration as a minimum objective for the design of the free product removal system;

(c) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(d) Unless directed to do otherwise by the implementing agency, prepare and submit to the implementing agency, within 45 days after confirming a release, a free product removal report that provides at least the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected from, any discharge;

(6) The steps that have been or are being taken to obtain necessary permits for any discharge; and

(7) The disposition of the recovered free product.

§ 280.65 Investigations for soil and ground-water cleanup.

(a) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the ground water, owners and operators must conduct investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(1) There is evidence that ground-water wells have been affected by the release (e.g., as found during release

confirmation or previous corrective action measures);

(2) Free product is found to need recovery in compliance with § 280.64;

(3) There is evidence that contaminated soils may be in contact with ground water (e.g., as found during conduct of the initial response measures or investigations required under §§ 280.60 through 280.64); and

(4) The implementing agency requests an investigation, based on the potential effects of contaminated soil or ground water on nearby surface water and ground-water resources.

(b) Owners and operators must submit the information collected under paragraph (a) of this section as soon as practicable or in accordance with a schedule established by the implementing agency.

§ 280.66 Corrective action plan.

(a) At any point after reviewing the information submitted in compliance with § 280.61 through § 280.63, the implementing agency may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and ground water. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the implementing agency. Alternatively, owners and operators may, after fulfilling the requirements of § 280.61 through § 280.63, choose to submit a corrective action plan for responding to contaminated soil and ground water. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the implementing agency, and must modify their plan as necessary to meet this standard.

(b) The implementing agency will approve the corrective action plan only after ensuring that implementation of the plan will adequately protect human health, safety, and the environment. In making this determination, the implementing agency should consider the following factors as appropriate:

(1) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(2) The hydrogeologic characteristics of the facility and the surrounding area;

(3) The proximity, quality, and current and future uses of nearby surface water and ground water;

(4) The potential effects of residual contamination on nearby surface water and ground water;

(5) An exposure assessment; and

(6) Any information assembled in compliance with this subpart.

(c) Upon approval of the corrective action plan or as directed by the implementing agency, owners and operators must implement the plan, including modifications to the plan made by the implementing agency. They must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the implementing agency.

(d) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and ground water before the corrective action plan is approved provided that they:

(1) Notify the implementing agency of their intention to begin cleanup;

(2) Comply with any conditions imposed by the implementing agency, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(3) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the implementing agency for approval.

§ 280.67 Public participation.

(a) For each confirmed release that requires a corrective action plan, the implementing agency must provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned corrective action. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, publication in a state register, letters to individual households, or personal contacts by field staff.

(b) The implementing agency must ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(c) Before approving a corrective action plan, the implementing agency may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(d) The implementing agency must give public notice that complies with paragraph (a) of this section if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the implementing agency.

Subpart G—Out-of-Service UST Systems and Closure

§ 280.70 Temporary closure.

(a) When an UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection in accordance with § 280.31, and any release detection in accordance with Subpart D. Subparts E and F must be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

(b) When an UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

(1) Leave vent lines open and functioning; and

(2) Cap and secure all other lines, pumps, manways, and ancillary equipment.

(c) When an UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in § 280.20 for new UST systems or the upgrading requirements in § 280.21, *except that* the spill and overfill equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period in accordance with §§ 280.71-280.74, *unless* the implementing agency provides an extension of the 12-month temporary closure period. Owners and operators must complete a site assessment in accordance with § 280.72 before such an extension can be applied for.

§ 280.71 Permanent closure and changes-in-service.

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the implementing agency, owners and operators must notify the implementing agency of their intent to permanently close or make the change-in-service, *unless* such action is in response to corrective action. The required assessment of the excavation zone under § 280.72 must be performed after notifying the implementing agency but before completion of the permanent closure or a change-in-service.

(b) To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material.

(c) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with § 280.72.

NOTE: The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

(B) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

(C) American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

(D) The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard * * * Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

§ 280.72 Assessing the site at closure or change-in-service.

(a) Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release. The requirements of this section are satisfied if one of the external release detection methods allowed in § 280.43 (e) and (f) is operating in accordance with the requirements in § 280.43 at the time of closure, and indicates no release has occurred.

(b) If contaminated soils, contaminated ground water, or free product as a liquid or vapor is discovered under paragraph (a) of this section, or by any other manner, owners and operators must begin corrective action in accordance with Subpart F.

§ 280.73 Applicability to previously closed UST systems.

When directed by the implementing agency, the owner and operator of an UST system permanently closed before December 22, 1988 must assess the excavation zone and close the UST system in accordance with this Subpart if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.

§ 280.74 Closure records.

Owners and operators must maintain records in accordance with § 280.34 that are capable of demonstrating compliance with closure requirements under this Subpart. The results of the excavation zone assessment required in § 280.72 must be maintained for at least 3 years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the UST system out of service;

(b) By the current owners and operators of the UST system site; or

(c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

Subpart H—Financial Responsibility

SOURCE: 53 FR 43370, Oct. 26, 1988, unless otherwise noted.

§ 280.90 Applicability.

(a) This subpart applies to owners and operators of all petroleum underground storage tank (UST) systems except as otherwise provided in this section.

(b) Owners and operators of petroleum UST systems are subject to these requirements if they are in operation on or after the date for compliance established in § 280.91.

(c) State and Federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of this subpart.

(d) The requirements of this subpart do not apply to owners and operators of any UST system described in § 280.10 (b) or (c).

(e) If the owner and operator of a petroleum underground storage tank are separate persons, only one person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance. Regardless of which party complies, the date set for compliance at a particular facility is determined by the characteristics of the owner as set forth in § 280.91.

§ 280.91 Compliance dates.

Owners of petroleum underground storage tanks are required to comply with the requirements of this subpart by the following dates:

(a) All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of $20 million or more to the U.S. Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration; January 24, 1989, except that compliance with § 280.94(b) is required by: July 24, 1989.

(b) All petroleum marketing firms owning 100-999 USTs; October 26, 1989.

(c) All petroleum marketing firms owning 13-99 USTs at more than one facility; April 26, 1990.

(d) All petroleum UST owners not described in paragraphs (a), (b), or (c) of this section, including all local government entities; October 26, 1990.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 5452, Feb. 3, 1989]

§ 280.92 Definition of terms.

When used in this subpart, the following terms shall have the meanings given below:

(a) "Accidental release" means any sudden or nonsudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

(b) "Bodily injury" shall have the meaning given to this term by applicable state law; however, this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

(c) "Controlling interest" means direct ownership of at least 50 percent of the voting stock of another entity.

(d) "Director of the Implementing Agency" means the EPA Regional Administrator, or, in the case of a state with a program approved under section 9004, the Director of the designated state or local agency responsible for carrying out an approved UST program.

(e) "Financial reporting year" means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

(1) a 10-K report submitted to the SEC;

(2) an annual report of tangible net worth submitted to Dun and Bradstreet; or

(3) annual reports submitted to the Energy Information Administration or the Rural Electrification Administration.

"Financial reporting year" may thus comprise a fiscal or a calendar year period.

(f) "Legal defense cost" is any expense that an owner or operator or provider of financial assurance incurs in defending against claims or actions brought,

(1) By EPA or a state to require corrective action or to recover the costs of corrective action;

(2) By or on behalf of a third party for bodily injury or property damage caused by an accidental release; or

(3) By any person to enforce the terms of a financial assurance mechanism.

(g) "Occurrence" means an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

NOTE: This definition is intended to assist in the understanding of these regulations and is not intended either to limit the meaning of "occurrence" in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of "occurrence."

(h) "Owner or operator," when the owner or operator are separate parties, refers to the party that is obtaining or has obtained financial assurances.

(i) "Petroleum marketing facilities" include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

(j) "Petroleum marketing firms" are all firms owning petroleum marketing facilities. Firms owning other types of facilities with USTs as well as petroleum marketing facilities are considered to be petroleum marketing firms.

(k) "Property damage" shall have the meaning given this term by applicable state law. This term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

(l) "Provider of financial assurance" means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in §§ 280.95-280.103, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

(m) "Substantial business relationship" means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from and depends on existing economic transactions between the guarantor and the owner or operator.

(n) "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

§ 280.93 Amount and scope of required financial responsibility.

(a) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following per-occurrence amounts:

(1) For owners or operators of petroleum underground storage tanks that are located at petroleum marketing facilities, or that handle an average of more than 10,000 gallons of petroleum per month based on annual throughput for the previous calendar year; $1 million.

(2) For all other owners or operators of petroleum underground storage tanks; $500,000.

(b) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following annual aggregate amounts:

(1) For owners or operators of 1 to 100 petroleum underground storage tanks, $1 million; and

(2) For owners or operators of 101 or more petroleum underground storage tanks, $2 million.

(c) For the purposes of paragraphs (b) and (f) of this section, only, "a petroleum underground storage tank" means a single containment unit and does not mean combinations of single containment units.

(d) Except as provided in paragraph (e) of this section, if the owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for:

(1) Taking corrective action;

(2) Compensating third parties for bodily injury and property damage caused by sudden accidental releases; or

(3) Compensating third parties for bodily injury and property damage caused by nonsudden accidental releases, the amount of assurance provided by each mechanism or combination of mechanisms must be in the full amount specified in paragraphs (a) and (b) of this section.

(e) If an owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for different petroleum underground storage tanks, the annual aggregate required shall be based on the number of tanks covered by each such separate mechanism or combination of mechanisms.

(f) Owners or operators shall review the amount of aggregate assurance provided whenever additional petroleum underground storage tanks are acquired or installed. If the number of petroleum underground storage tanks for which assurance must be provided exceeds 100, the owner or operator shall demonstrate financial responsibility in the amount of at least $2 million of annual aggregate assurance by the anniversary of the date on which the mechanism demonstrating financial responsibility became effective. If assurance is being demonstrated by a combination of mechanisms, the owner or operator shall demonstrate financial responsibility in the amount of at least $2 million of annual aggregate assurance by the first-occurring effective date anniversary of any one of the mechanisms combined (other than a financial test or guarantee) to provide assurance.

(g) The amounts of assurance required under this section exclude legal defense costs.

(h) The required per-occurrence and annual aggregate coverage amounts do not in any way limit the liability of the owner or operator.

§ 280.94 Allowable mechanisms and combinations of mechanisms.

(a) Subject to the limitations of paragraphs (b) and (c) of this section, an owner or operator may use any one or combination of the mechanisms listed in §§ 280.95 through 280.103 to demonstrate financial responsibility under this subpart for one or more underground storage tanks.

(b) An owner or operator may use a guarantee or surety bond to establish financial responsibility only if the Attorney(s) General of the state(s) in which the underground storage tanks are located has (have) submitted a written statement to the implementing agency that a guarantee or surety bond executed as described in this section is a legally valid and enforceable obligation in that state.

(c) An owner or operator may use self-insurance in combination with a guarantee only if, for the purpose of meeting the requirements of the financial test under this rule, the financial statements of the owner or operator are not consolidated with the financial statements of the guarantor.

§ 280.95 Financial test of self-insurance.

(a) An owner or operator, and/or guarantor, may satisfy the requirements of § 280.93 by passing a financial test as specified in this section. To pass the financial test of self-insurance, the owner or operator, and/or guarantor must meet the criteria of paragraph (b) or (c) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The owner or operator, and/or guarantor, must have a tangible net worth of at least ten times:

(i) The total of the applicable aggregate amount required by § 280.93, based on the number of underground storage tanks for which a financial test is used to demonstrate financial responsibility to EPA under this section or to a state implementing agency under a state program approved by EPA under 40 CFR Part 281;

(ii) The sum of the corrective action cost estimates, the current closure and post-closure care cost estimates, and amount of liability coverage for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 264.101, 264.143, 264.145, 265.143, 165.145, 264.147, and 265.147 or to a state implementing agency under a state program authorized by EPA under 40 CFR Part 271; and

(iii) The sum of current plugging and abandonment cost estimates for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 144.63 or to a state implementing agency under a state program authorized by EPA under 40 CFR Part 145.

(2) The owner or operator, and/or guarantor, must have a tangible net worth of at least $10 million.

(3) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer worded as specified in paragraph (d) of this section.

(4) The owner or operator, and/or guarantor, must either:

(i) File financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Electrification Administration; or

(ii) Report annually the firm's tangible net worth to Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a financial strength rating of 4A or 5A.

(5) The firm's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(c)(1) The owner or operator, and/or guarantor must meet the financial test requirements of 40 CFR 264.147(f)(1), substituting the appropriate amounts specified in § 280.93 (b)(1) and (b)(2) for the "amount of liability coverage" each time specified in that section.

(2) The fiscal year-end financial statements of the owner or operator, and/or guarantor, must be examined by an independent certified public accountant and be accompanied by the accountant's report of the examination.

(3) The firm's year-end financial statements cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(4) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer, worded as specified in paragraph (d) of this section.

(5) If the financial statements of the owner or operator, and/or guarantor, are not submitted annually to the U.S. Securities and Exchange Commission, the Energy Information Administration or the Rural Electrification Administration, the owner or operator, and/or guarantor, must obtain a special report by an independent certified public accountant stating that:

(i) He has compared the data that the letter form the chief financial officer specifies as having been derived from the latest year-end financial statements of the owner or operator, and/or guarantor, with the amounts in such financial statements; and

(ii) In connection with that comparison, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(d) To demonstrate that it meets the financial test under paragraph (b) or (c) of this section, the chief financial officer of the owner or operator, or guarantor, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: "the financial test of self-insurance," and/or "guarantee"] to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidential releases" and/or "nonsudden accidential releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this financial test or a financial test under an authorized State program by this [insert: "owner or operator," and/or "guarantor"]: [List for each facility: the name and address of the facility where tanks assured by this financial test are located, and whether tanks are assured by this financial test or a financial test under a State program approved under 40 CFR Part 281. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test or a financial test under a State program authorized under 40 CFR Part 281 by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding State requirements.]

A [insert: "financial test," and/or "guarantee"] is also used by this [insert: "owner or operator," or "guarantor"] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or state programs authorized by EPA under 40 CFR Parts 271 and 145:

EPA Regulations	*Amount*
Closure (§§ 264.143 and 265.143)	$______
Post-Closure Care (§§ 264.145 and 265.145)	$______
Liability Coverage (§§ 264.147 and 265.147)	$______
Corrective Action (§§ 264.101(b))	$______
Plugging and Abandonment (§ 144.63)	$______
Closure	$______
Post-Closure Care	$______
Liabilitly Coverage	$______
Corrective Action	$______
Plugging and Abandonment	$______
Total	$______

This [insert: "owner or operator," or "guarantor"] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of paragraph (b) of § 280.95 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of paragraph (c) of § 280.95 are being used to demonstrate compliance with the financial test requirements.]

Alternative I

1. Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee .... $______
2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee .. $______
3. Sum of lines 1 and 2 .... $______
4. Total tangible assets........ $______
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] .... $______

Alternative I—Continued

6. Tangible net worth [subtract line 5 from line 4] .... $______

Yes No

7. Is line 6 at least $10 million? .... ___ ___
8. Is line 6 at least 10 times line 3? .... ___ ___
9. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission? .... ___ ___
10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration? .... ___ ___
11. Have financial statements for the lastest fiscal year been filed with the Rural Electrification Administration? .... ___ ___
12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer "Yes" only if both criteria have been met.] .... ___ ___

Alternative II

1. Amount of annual UST aggregate coverage being assured by a test, and/or guarantee .. $______
2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee .. $______
3. Sum of lines 1 and 2 .... $______
4. Total tangible assets........ $______

Alternative I—Continued

5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] .... $____
6. Tangible net worth [subtract line 5 from line 4] .... $____
7. Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.] .... $____

Yes No

8. Is line 6 at least $10 million? .... $____ __
9. Is line 6 at least 6 times line 3? .... ____ __
10. Are at least 90 percent of assets located in the U.S.? [If "No," complete line 11.] .... ____ __
11. Is line 7 at least 6 times line 3? .... ____ __

[Fill in either lines 12–15 or lines 16–18:]

12. Current assets .... $____
13. Current liabilities .... ____
14. Net working capital [subtract line 13 from line 12] .... ____

Yes No

15. Is line 14 at least 6 times line 3? .... ____ __
16. Current bond rating of most recent bond issue .... ____ __
17. Name of rating service .... ____ __
18. Date of maturity of bond .... ____ __
19. Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Electrification Administration? .... ____ __

[If "No," please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4–18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR Part 280.95(d) as such regulations were constituted on the date shown immediately below.

[Signature]
[Name]
[Title]
[Date]

(e) If an owner or operator using the test to provide financial assurance finds that he or she no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(f) The Director of the implementing agency may require reports of financial condition at any time from the owner or operator, and/or guarantor. If the Director finds, on the basis of such reports or other information, that the owner or operator, and/or guarantor, no longer meets the financial test requirements of § 280.95(b) or (c) and (d), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(g) If the owner or operator fails to obtain alternate assurance within 150 days of finding that he or she no longer meets the requirements of the financial test based on the year-end financial statements, or within 30 days of notification by the Director of the implementing agency that he or she no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

§ 280.96 Guarantee.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be:

(1) A firm that (i) possesses a controlling interest in the owner or operator; (ii) possesses a controlling interest in a firm described under paragraph

(a)(1)(i) of this section; or, (iii) is controlled through stock ownership by a common parent firm that possesses a controlling interest in the owner or operator; or,

(2) A firm engaged in a substantial business relationship with the owner or operator and issuing the guarantee as an act incident to that business relationship.

(b) Within 120 days of the close of each financial reporting year the guarantor must demonstrate that it meets the financial test criteria of § 280.95 based on year-end financial statements for the latest completed financial reporting year by completing the letter from the chief financial officer described in § 280.95(d) and must deliver the letter to the owner or operator. If the guarantor fails to meet the requirements of the financial test at the end of any financial reporting year, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator. If the Director of the implementing agency notifies the guarantor that he no longer meets the requirements of the financial test of § 280.95 (b) or (c) and (d), the guarantor must notify the owner or operator within 10 days of receiving such notification from the Director. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.110(c).

(c) The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

GUARANTEE

Guarantee made this [date] by [name of guaranteeing entity], a business entity organized under the laws of the state of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].

Recitals.

(1) Guarantor meets or exceeds the financial test criteria of 40 CFR 280.95 (b) or (c) and (d) and agrees to comply with the requirements for guarantors as specified in 40 CFR 280.96(b).

(2) [Owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR Part 280, Subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or operator); "On behalf of our affiliate" (if guarantor is a related firm of the owner or operator); or "Incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director], shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR Part 280, Subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidential releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.108 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of 40 CFR 280.95 (b) or (c) and (d), guarantor shall send within 120 days of such failure, by certified mail, notice to [owner or operator]. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR Part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR Part 280, Subpart H for the above-identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.96(c) as such regulations were constituted on the effective date shown immediately below.

Effective date: ______

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

(d) An owner or operator who uses a guarantee to satisfy the requirements of § 280.93 must establish a standby trust fund when the guarantee is obtained. Under the terms of the guarantee, all amounts paid by the guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Director of the implementing agency under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

§ 280.97 Insurance and risk retention group coverage.

(a) An owner or operator may satisfy the requirements of § 290.93 by obtaining liability insurance that conforms to the requirements of this section from a qualified insurer or risk retention group. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

(b) Each insurance policy must be amended by an endorsement worded as specified in paragraph (b)(1) of this section, or evidenced by a certificate of insurance worded as specified in paragraph (b)(2) of this section, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

(1) Endorsement

Name: [name of each covered location]
____
____

Address: [address of each covered location]
____
____

Policy Number: ____________________
Period of Coverage: [current policy period]
____
____

Name of [Insurer or Risk Retention Group]:
____
____

Address of [Insurer or Risk Retention Group]:
____
____

Name of Insured: ____________________
Address of Insured: ____________________
____
____

ENDORSEMENT:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following underground storage tanks:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e);

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"] will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims for any occurrence that commenced during the term of the policy that is discovered and reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or termination of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(1) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states"].

[Signature of authorized representative of Insurer or Risk Retention Group]
[Name of person signing]
[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]
[Address of Representative]

(2) CERTIFICATE OF INSURANCE

Name: [name of each covered location]
____
____

Address: [address of each covered location]
____
____

Policy Number: ____________________
Endorsement (if applicable): ____________________
Period of Coverage: [current policy period]

Name of [Insurer or Risk Retention Group]: ______

Address of [Insurer or Risk Retention Group]: ______

Name of Insured: ______

Address of Insured: ______

Certification:

1. [Name of Insurer or Risk Retention Group], [the "Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance covering the following underground storage tank(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The ["Insurer" or "Group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this certificate applies.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"] will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims for any occurrence that commenced during the term of the policy that is discovered and reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or other termination of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(2) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states"].

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

(c) Each insurance policy must be issued by an insurer or a risk retention group that, at a minimum, is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

§ 280.98 Surety bond.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a surety bond that conforms to the requirements of this section. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

(b) The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed: ____________

Period of coverage: ____________

Principal: [legal name and business address of owner or operator]

____

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

____

State of incorporation (if applicable):

____

Surety(ies): [name(s) and business address(es)]

____

Scope of Coverage: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility. List the coverage guaranteed by the bond: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases" "arising from operating the underground storage tank"].

Penal sums of bond:

Per occurrence $____________

Annual aggregate $____________

Surety's bond number: ____________

Know All Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to [the implementing agency], in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under Subtitle I of the Resource Conservation and Recovery Act (RCRA), as amended, to provide financial assurance for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tanks identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully ["take corrective action, in accordance with 40 CFR Part 280, Subpart F and the Director of the state implementing agency's instructions for," and/or "compensate injured third parties for bodily injury and property damage caused by" either "sudden" or "nonsudden" or "sudden and nonsudden"] accidental releases arising from operating the tank(s) indentified above, or if the Principal shall provide alternate financial assurance, as specified in 40 CFR Part 280, Subpart H, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by [the Director of the implementing agency] that the Principal has failed to ["take corrective action, in accordance with 40 CFR Part 280, Subpart F and the Director's instructions," and/or "compensate injured third parties"] as guaranteed by this bond, the Surety(ies) shall either perform ["corrective action in accordance with 40 CFR Part 280 and the Director's instructions," and/or "third-party liability compensation"] or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by [the Regional Administrator or the Director] under 40 CFR 280.108.

Upon notification by [the Director] that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that [the Director] has determined or suspects that a release has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by [the Director] under 40 CFR 280.108.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Thereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 280.98(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]
[Names(s)]
[Title(s)]
[Corporate seal]

Corporate Surety(ies)

[Name and address]
[State of Incorporation: ________
[Liability limit: $________
[Signature(s)]
[Names(s) and title(s)]
[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $________

(c) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the per-occurrence and annual aggregate penal sums.

(d) The owner or operator who uses a surety bond to satisfy the requirements of § 280.93 must establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Director under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

§ 280.99 Letter of credit.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining an irrevocable standby letter of credit that conforms to the requirements of this section. The issuing institution must be an entity that has the authority to issue letters of credit in each state where used and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(b) The letter of credit must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

[Name and address of issuing institution]
[Name and address of Director(s) of state implementing agency(ies)]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. —— in your favor, at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars ($[insert dollar amount]), available upon presentation [insert, if more than one Director of a state implementing agency is a beneficiary, "by any one of you"] of

(1) your sight draft, bearing reference to this letter of credit, No. ——, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable persuant to regulations issued under authority of Subtitle I of the Resource Conservation and Recovery Act of 1976, as amended."

This letter of credit may be drawn on to cover [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the underground storage tank(s) identified below in the amount of [in words] $[insert dollar amount] per occurrence and [in words] $[insert dollar amount] annual aggregate:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the curent expiration date, we notify [owner or operator] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator], as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 280.99(b) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(c) An owner or operator who uses a letter of credit to satisfy the requirements of § 280.93 must also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director of the implementing agency will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

(d) The letter of credit must be irrevocable with a term specified by the issuing institution. The letter of credit must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator by certified mail of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the owner or operator receives the notice, as evidenced by the return receipt.

§ 280.100 Use of state-required mechanism.

(a) For underground storage tanks located in a state that does not have an approved program, and where the state requires owners or operators of underground storage tanks to demonstrate financial responsibility for taking corrective action and/or for compensating third parties for bodily injury and property damage, an owner or operator may use a state-required financial mechanism to meet the requirements of § 280.93 if the Regional Administrator determines that the state mechanism is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state-required mechanism principally in terms of: certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state, an owner or operator, or any other interested party may submit to the Regional Administrator a written petition requesting that one or more of the state-required mechanisms be considered acceptable for meeting the requirements of § 280.93. The submission must include copies of the appropriate state statutory and regulatory requirements and must show the amount of funds for corrective action and/or for compensating third parties assured by the mechanism(s). The Regional Administrator may require the petitioner to submit additional information as is deemed necessary to make this determination.

(d) Any petition under this section may be submitted on behalf of all of the state's underground storage tank owners and operators.

(e) The Regional Administrator will notify the petitioner of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. Pending this determination, the owners and operators using such mechanisms will be deemed to be in compliance with the requirements of § 280.93 for underground storage tanks located in the state for the amounts and types of costs covered by such mechanisms.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 280.101 State fund or other state assurance.

(a) An owner or operator may satisfy the requirements of § 280.93 for underground storage tanks located in a state, where EPA is administering the requirements of this subpart, which assures that monies will be available from a state fund or state assurance program to cover costs up to the limits specified in § 280.93 or otherwise assures that such costs will be paid if the Regional Administrator determines that the state's assurance is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state fund or other state assurance principally in terms of: Certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state must submit to the Regional Administrator a description of the state fund or other state assurance to be supplied as financial assurance, along with a list of the classes of underground storage tanks to which the funds may be applied. The Regional Administrator may require the state to submit additional information as is deemed necessary to make a determination regarding the acceptability of the state fund or other state assurance. Pending the determination by the Regional Administrator, the owner or operator of a covered class of USTs will be deemed to be in compliance with the requirements of § 280.93 for the amounts and types of costs covered by the state fund or other state assurance.

(d) The Regional Administrator will notify the state of his determination regarding the acceptability of the state's fund or other assurance in lieu of financial mechanisms specified in this subpart. Within 60 days after the Regional Administrator notifies a state that a state fund or other state assurance is acceptable, the state must provide to each owner or operator for which it is assuming financial responsibility a letter or certificate describing the nature of the state's assumption of responsibility. The letter or certificate from the state must include, or have attached to it, the following information: the facility's name and address and the amount of funds for corrective action and/or for compensating third parties that is assured by the state. The owner or operator must maintain this letter or certificate on file as proof of financial responsibility in accordance with § 280.107(b)(5).

§ 280.102 Trust fund.

(a) An owner or operator may satisfy the requirements of § 280.93 by establishing a trust fund that conforms to the requirements of this section. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal agency or an agency of the state in which the fund is established.

(b) The wording of the trust agreement must be identical to the wording specified in § 280.103(b)(1), and must be accompanied by a formal certification of acknowledgement as specified in § 280.103(b)(2).

(c) The trust fund, when established, must be funded for the full required amount of coverage, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining required coverage.

(d) If the value of the trust fund is greater than the required amount of coverage, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(e) If other financial assurance as specified in this subpart is substituted for all or part of the trust fund, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(f) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (d) or (e) of this section, the Director of the implementing agency will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

§ 280.103 Standby trust fund.

(a) An owner or operator using any one of the mechanisms authorized by §§ 280.96, 280.98, or 280.99 must establish a standby trust fund when the mechanism is acquired. The trustee of the standby trust fund must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal agency or an agency of the state in which the fund is established.

(b)(1) The standby trust agreement, or trust agreement, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "Incorporated in the state of ______" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of an underground storage tank shall provide assurance that funds will be available when needed for corrective action and third-party compensation for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from the operation of the underground storage tank. The attached Schedule A lists the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located that are covered by the standpoint trust agreement.

[Whereas, the Grantor has elected to establish [insert either "a guarantee," "surety bond," or "letter of credit"] to provide all or part of such financial assurance for the underground storage tanks identified herein and is required to establish a standby trust fund able to accept payments from the instrument (This paragraph is only applicable to the standby trust agreement.)];

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee;

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions

As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of the Financial Assurance Mechanism.

This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement.)].

Section 3. Establishment of Fund.

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of [implementing agency]. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. [The Fund is established initially as a standby to receive payments and shall not consist of any property.] Payments made by the provider of financial assurance pursuant to [the Director of the implementing agency's] instruction are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor as provider of financial assurance, any payments necessary to discharge any liability of the Grantor established by [the state implementing agency].

Section 4. Payment for ["Corrective Action" and/or Third-Party Liability Claims"].

The Trustee shall make payments from the Fund as [the Director of the implementing agency] shall direct, in writing, to provide for the payment of the costs of [insert: "taking corrective action" and/or compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Trustee shall reimburse the Grantor, or other persons as specified by [the Director], from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as [the Director] shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as [the Director] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of cash and securities acceptable to the Trustee.

Section 6. Trustee Management.

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the tanks, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee.

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by [the Director of the implementing agency] to the Trustee shall be in writing, signed by [the Director], and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or [the director] hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or [the Director], except as provided for herein.

Section 14. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency] if the Grantor ceases to exist.

Section 15. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency], if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 16. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or [the Director of the implementing agency] issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the state of [insert name of state], or the Comptroller of the Currency in the case of National Association banks.

Section 18. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 280.103(b)(1) as such regulations were constituted on the date written above.

[Signature of Grantor]
[Name of the Grantor]
[Title]

Attest:
  [Signature of Trustee]
  [Name of the Trustee]
  [Title]
  [Seal]
  [Signature of Witness]
  [Name of the Witness]
  [Title]
  [Seal]

(2) The standby trust agreement, or trust agreement must be accompanied by a formal certification of acknowledgement similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of ______________________

County of ______________________

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]
[Name of Notary Public]

(c) The Director of the implementing agency will instruct the trustee to refund the balance of the standby trust fund to the provider of financial assurance if the Director determines that no additional corrective action costs or third-party liability claims will occur as a result of a release covered by the financial assurance mechanism for which the standby trust fund was established.

(d) An owner or operator may establish one trust fund as the depository mechanism for all funds assured in compliance with this rule.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 280.104 Substitution of financial assurance mechanisms by owner or operator.

(a) An owner or operator may substitute any alternate financial assurance mechanisms as specified in this subpart, provided that at all times he maintains an effective financial assurance mechanism or combination of mechanisms that satisfies the requirements of § 280.93.

(b) After obtaining alternate financial assurance as specified in this subpart, an owner or operator may cancel a financial assurance mechanism by providing notice to the provider of financial assurance.

§ 280.105 Cancellation or nonrenewal by a provider of financial assurance.

(a) Except as otherwise provided, a provider of financial assurance may cancel or fail to renew an assurance mechanism by sending a notice of termination by certified mail to the owner or operator.

(1) Termination of a guarantee, a surety bond, or a letter of credit may not occur until 120 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(2) Termination of insurance, risk retention group coverage, or state-funded assurance may not occur until 60 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(b) If a provider of financial responsibility cancels or fails to renew for reasons other than incapacity of the provider as specified in §280.106, the owner or operator must obtain alternate coverage as specified in this section within 60 days after receipt of the notice of termination. If the owner or operator fails to obtain alternate coverage within 60 days after receipt of the notice of termination, the owner or operator must notify the Director of the implementing agency of such failure and submit:

(1) The name and address of the provider of financial assurance;

(2) The effective date of termination; and

(3) The evidence of the financial assistance mechanism subject to the termination maintained in accordance with § 280.107(b).

§ 280.106 Reporting by owner or operator.

(a) An owner or operator must submit the appropriate forms listed in § 280.107(b) documenting current evidence of financial responsibility to the Director of the implementing agency:

(1) Within 30 days after the owner or operator identifies a release from an underground storage tank required to be reported under § 280.53 or § 280.61;

(2) If the owner or operator fails to obtain alternate coverage as required by this subpart, within 30 days after the owner or operator receives notice of:

(i) Commencement of a voluntary or involuntary proceeding under Title 11 (Bakruptcy), U.S. Code, naming a provider of financial assurance as a debtor,

(ii) Suspension or revocation of the authority of a provider of financial assurance to issue a financial assurance mechanism,

(iii) Failure of a guarantor to meet the requirements of the financial test,

(iv) Other incapacity of a provider of financial assurance; or

(3) As required by § 280.95(g) and § 280.105(b).

(b) An owner or operator must certify compliance with the financial responsibility requirements of this part as specified in the new tank notification form when notifying the appropriate state or local agency of the installation of a new underground storage tank under § 280.22.

(c) The Director of the Implementing Agency may require an owner or operator to submit evidence of financial assurance as described in § 280.107(b) or other information relevant to compliance with this subpart at any time.

(The information requirements in this section have been approved by the Office of Management and Budget and assigned OMB control number 2050-0066.)

§ 280.107 Recordkeeping.

(a) Owners or operators must maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility under this subpart for an underground storage tank until released from the requirements of this subpart under § 208.109. An owner or operator must maintain such evidence at the underground storage tank site or the owner's or operator's place of business. Records maintained off-site must be made available upon request of the implementing agency.

(b) An owner or operator must maintain the following types of evidence of financial responsibility:

(1) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.100 or § 280.102 must maintain a copy of the instrument worded as specified.

(2) An owner or operator using a financial test or guarantee must maintain a copy of the chief financial officer's letter based on year-end financial statements for the most recent completed financial reporting year. Such evidence must be on file no later than 120 days after the close of the financial reporting year.

(3) An owner or operator using a guarantee, surety bond, or letter of credit must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(4) An owner or operator using an insurance policy or risk retention group coverage must maintain a copy of the signed insurance policy or risk retention group coverage policy, with the endorsement or certificate of insurance and any amendments to the agreements.

(5) An owner or operator covered by a state fund or other state assurance must maintain on file a copy of any evidence of coverage supplied by or required by the State under § 280.101(d).

(6) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.102 must maintain an updated copy of a certification of financial responsibility worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF FINANCIAL RESPONSIBILITY

[Owner or operator] hereby certifies that it is in compliance with the rquirements of Subpart H of 40 CFR Part 280.

The financial assurance mechanism[s] used to demonstrate financial responsibility under Subpart H of 40 CFR Part 280 is [are] as follows:

[For each mechanism, list the type of mechanism, name of issuer, mechanism number (if applicable), amount of coverage, effective period of coverage and whether the mechanism covers "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidential releases" or "nonsudden accidential releases" or "accidental releases."]

[Signature of owner or operator]
[Name of owner or operator]
[Title]
[Date]

[Signature of witness or notary]
[Name of witness or notary]
[Date]

The owner or operator must update this certification whenever the financial assurance mechanism(s) used to demonstrate financial responsibility change(s).

(The information requirements in this section have been approved by the Office of Management and Budget and assigned OMB control number 2050-0066.)

§ 280.108 Drawing on financial assurance mechanisms.

(a) The Director of the implementing agency shall require the guarantor, surety, or institution issuing a letter of credit to place the amount of funds stipulated by the Director, up to the limit of funds provided by the financial assurance mechanism, into the standby trust if:

(1)(i) The owner or operator fails to establish alternate financial assurance within 60 days after receiving notice of cancellation of the guarantee, surety bond, letter of credit, or, as applicable, other financial assurance mechanism; and

(ii) The Director determines or suspects that a release from an underground storage tank covered by the mechanism has occurred and so notifies the owner or operator or the owner or operator has notified the Director pursuant to Subparts E or F of a release from an underground storage tank covered by the mechanism; or

(2) The conditions of paragraph (b)(1) or (b)(2)(i) or (ii) of this section are satisfied.

(b) The Director of the implementing agency may draw on a standby trust fund when:

(1) The Director makes a final determination that a release has occurred and immediate or long-term corrective action for the release is needed, and the owner or operator, after appropriate notice and opportunity to comply, has not conducted corrrective action as required under 40 CFR Part 280, Subpart F; or

(2) The Director has received either:

(i) Certification from the owner or operator and the third-party liability claimant(s) and from attorneys representing the owner or operator and the third-party liability claimant(s) that a third-party liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as principals and as legal representatives of [insert owner or operator] and [insert name and address of third-party claimant], hereby certify that the claim of bodily injury [and/or] property damage caused by an accidental release arising from operating [owner's or operator's] underground storage tank should be paid in the amount of $[______].

[Signatures]
Owner or Operator
Attorney for Owner or Operator
(Notary) Date
[Signature(s)]
Claimant(s)
Attorney(s) for Claimant(s)
(Notary) Date

or (ii) A valid final court order establishing a judgment against the owner or operator for bodily injury or property damage caused by an accidental release from an underground storage tank covered by financial assurance under this subpart and the Director determines that the owner or operator has not satisfied the judgment.

(c) If the Director of the implementing agency determines that the amount of corrective action costs and third-party liability claims eligible for payment under paragraph (b) of this section may exceed the balance of the standby trust fund and the obligation of the provider of financial assurance, the first priority for payment shall be corrective action costs necessary to protect human health and the environment. The Director shall pay third-party liability claims in the order in which the Director receives certifications under paragraph (b)(2)(i) of this section, and valid court orders under paragraph (b)(2)(ii) of this section.

§ 280.109 Release from the requirements.

An owner or operator is no longer required to maintain financial responsibility under this subpart for an underground storage tank after the tank has been properly closed or, if corrective action is required, after corrective action has been completed and the tank has been properly closed as required by 40 CFR Part 280, Subpart G.

§ 280.110 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.

(a) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming an owner or operator as debtor, the owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.107(b) documenting current financial responsibility.

(b) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing financial assurance as debtor, such guarantor must notify the owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.96.

(c) An owner or operator who obtains financial assurance by a mechanism other than the financial test of self-insurance will be deemed to be without the required financial assurance in the event of a bankruptcy or incapacity of its provider of financial assurance, or a suspension or revocation of the authority of the provider of financial assurance to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, letter of credit, or state-required mechanism. The owner or operator must obtain alternate financial assurance as specified in this subpart within 30 days after receiving notice of such an event. If the owner or operator does not obtain alternate coverage within 30 days after such notification, he must notify the Director of the implementing agency.

(d) Within 30 days after receipt of notification that a state fund or other state assurance has become incapable of paying for assured corrective action or third-party compensation costs, the owner or operator must obtain alternate financial assurance.

§ 280.111 Replenishment of guarantees, letters of credit, or surety bonds.

(a) If at any time after a standby trust is funded upon the instruction of the Director of the implementing agency with funds drawn from a guarantee, letter of credit, or surety bond, and the amount in the standby trust is reduced below the full amount of coverage required, the owner or operator shall by the anniversary date of the financial mechanism from which the funds were drawn:

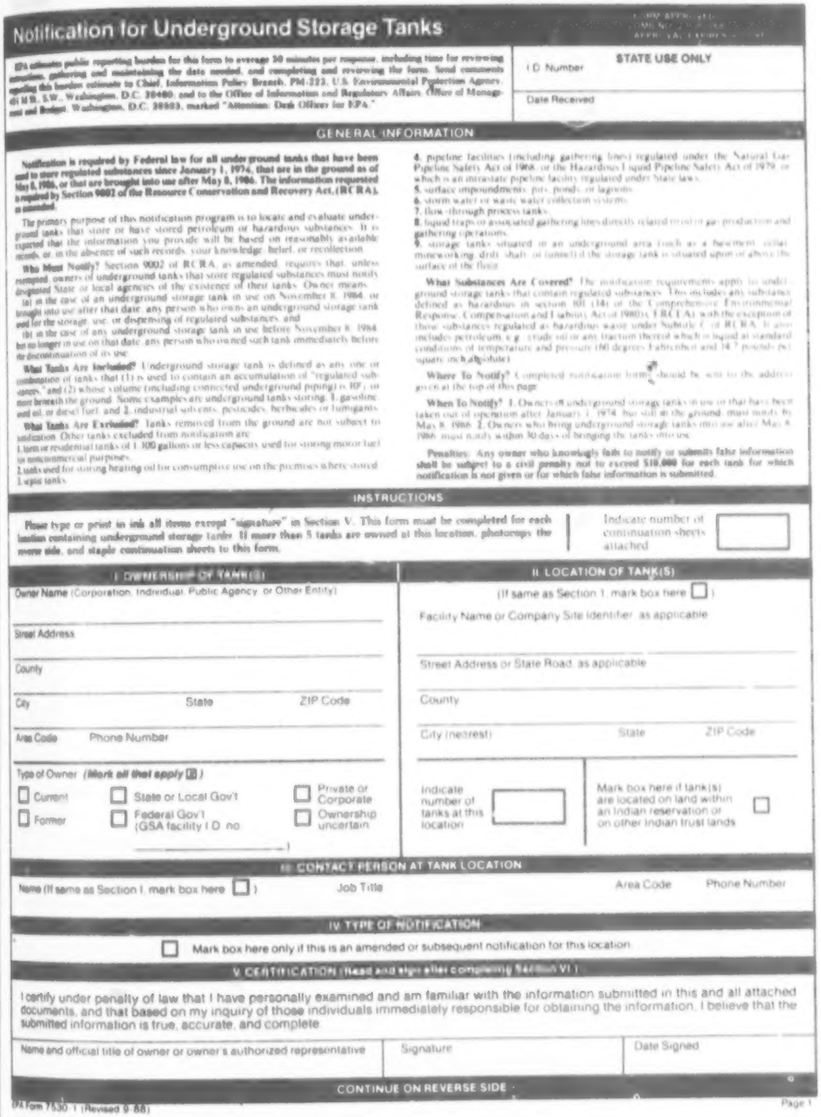
(1) Replenish the value of financial assurance to equal the full amount of coverage required, *or*

(2) Acquire another financial assurance mechanism for the amount by which funds in the standby trust have been reduced.

(b) For purposes of this section, the full amount of coverage required is the amount of coverage to be provided by § 280.93 of this subpart. If a combination of mechanisms was used to provide the assurance funds which were drawn upon, replenishment shall occur by the earliest anniversary date among the mechanisms.

§ 280.112 Suspension of enforcement. [Reserved]

APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)



Notification for Underground Storage Tanks

[illegible]

EPA estimates public reporting burden for this form to average 30 minutes per response, including time for reviewing instructions, gathering and maintaining the data needed, and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503, marked "Attention: Desk Officer for EPA."

STATE USE ONLY

I.D. Number

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached ☐

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

Street Address

County

City State ZIP Code

Area Code Phone Number

Type of Owner *(Mark all that apply ☒)*

☐ Current ☐ State or Local Gov't ☐ Private or Corporate

☐ Former ☐ Federal Gov't (GSA facility I.D. no. ______) ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) State ZIP Code

Indicate number of tanks at this location ☐

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐) Job Title Area Code Phone Number

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative | Signature | Date Signed

CONTINUE ON REVERSE SIDE

EPA Form 7530-1 (Revised 9-88) Page 1

Owner Name (from Section I) ________________ Location (from Section II) ________________ Page No. ____ of ____ Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	**Tank No.**	**Tank No.**	**Tank No.**	**Tank No.**	**Tank No.**
1. Status of Tank *(Mark all that apply ☒)* Currently in Use	☐	☐	☐	☐	☐
Temporarily Out of Use	☐	☐	☐	☐	☐
Permanently Out of Use	☐	☐	☐	☐	☐
Brought into Use after 5/8/86	☐	☐	☐	☐	☐
2. Estimated Age (Years)					
3. Estimated Total Capacity (Gallons)					
4. Material of Construction *(Mark one ☒)* Steel	☐	☐	☐	☐	☐
Concrete	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	____	____	____	____	____
5. Internal Protection *(Mark all that apply ☒)* Cathodic Protection	☐	☐	☐	☐	☐
Interior Lining (e.g., epoxy resins)	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	____	____	____	____	____
6. External Protection *(Mark all that apply ☒)* Cathodic Protection	☐	☐	☐	☐	☐
Painted (e.g., asphaltic)	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic Coated	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	____	____	____	____	____
7. Piping *(Mark all that apply ☒)* Bare Steel	☐	☐	☐	☐	☐
Galvanized Steel	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Cathodically Protected	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	____	____	____	____	____
8. Substance Currently or Last Stored in Greatest Quantity by Volume *(Mark all that apply ☒)* **a. Empty**	☐	☐	☐	☐	☐
b. Petroleum					
Diesel	☐	☐	☐	☐	☐
Kerosene	☐	☐	☐	☐	☐
Gasoline (including alcohol blends)	☐	☐	☐	☐	☐
Used Oil	☐	☐	☐	☐	☐
Other, Please Specify	____	____	____	____	____
c. Hazardous Substance	☐	☐	☐	☐	☐
Please Indicate Name of Principal CERCLA Substance	____	____	____	____	____
OR Chemical Abstract Service (CAS) No.	____	____	____	____	____
Mark box ☒ if tank stores a mixture of substances	☐	☐	☐	☐	☐
d. Unknown	☐	☐	☐	☐	☐
9. Additional Information (for tanks permanently taken out of service)					
a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)	____	____	____	____	____
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)	☐	☐	☐	☐	☐

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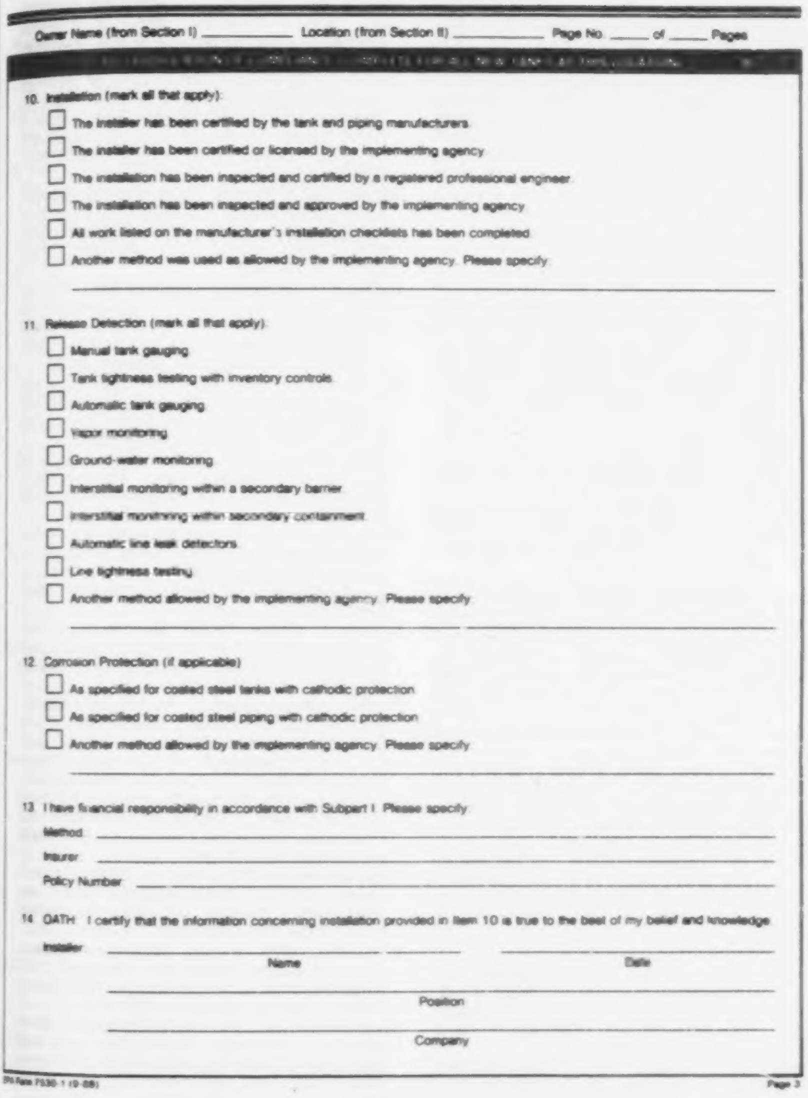

Owner Name (from Section I) ____________ Location (from Section II) ____________ Page No. _____ of _____ Pages

VII. CERTIFICATION OF COMPLIANCE (COMPLETE FOR ALL NEW TANKS AT THIS LOCATION)

10. Installation (mark all that apply):

☐ The installer has been certified by the tank and piping manufacturers.
☐ The installer has been certified or licensed by the implementing agency.
☐ The installation has been inspected and certified by a registered professional engineer.
☐ The installation has been inspected and approved by the implementing agency.
☐ All work listed on the manufacturer's installation checklists has been completed.
☐ Another method was used as allowed by the implementing agency. Please specify.

____

11. Release Detection (mark all that apply):

☐ Manual tank gauging.
☐ Tank tightness testing with inventory controls.
☐ Automatic tank gauging.
☐ Vapor monitoring.
☐ Ground-water monitoring.
☐ Interstitial monitoring within a secondary barrier.
☐ Interstitial monitoring within secondary containment.
☐ Automatic line leak detectors.
☐ Line tightness testing.
☐ Another method allowed by the implementing agency. Please specify.

____

12. Corrosion Protection (if applicable)

☐ As specified for coated steel tanks with cathodic protection.
☐ As specified for coated steel piping with cathodic protection.
☐ Another method allowed by the implementing agency. Please specify.

____

13. I have financial responsibility in accordance with Subpart I. Please specify.

Method: ____
Insurer: ____
Policy Number: ____

14. OATH: I certify that the information concerning installation provided in Item 10 is true to the best of my belief and knowledge.

Installer: ______________________ ______________
Name Date

____
Position

____
Company

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APPENDIX II TO PART 280—LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS

Alabama (EPA Form), Alabama Department of Environmental Management, Ground Water Section/Water Division, 1751 Congressman W.L. Dickinson Drive, Montgomery, Alabama 36130, 205/271-7823

Alaska (EPA Form), Department of Environmental Conservation, Box 0, Juneau, Alaska 99811-1800, 970/465-2653

American Samoa (EPA Form), Executive Secretary, Environmental Quality Commission, Office of the Governor, American Samoan Government, Pago Pago, American Samoa 96799; Attention: UST Notification

Arizona (EPA Form), Attention: UST Coordinator, Arizona Department of Environmental Quality, Environmental Health Services, 2005 N. Central, Phoenix, Arizona 85004

Arkansas (EPA Form), Arkansas Department of Pollution Control and Ecology, P.O. Box 9583, Little Rock, Arkansas 72219, 501/562-7444

California (State Form), Executive Director, State Water Resources Control Board, P.O. Box 100, Sacramento, California 95801, 916/445-1533

Colorado (EPA Form), Section Chief, Colorado Department of Health, Waste Management Division, Underground Tank Program, 4210 East 11th Avenue, Denver, Colorado 80220, 303/320-8333

Connecticut (State Form), Hazardous Materials Management Unit, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06106

Delaware (State Form), Division of Air and Waste Management, Department of Natural Resources and Environmental Control, P.O. Box 1401, 89 Kings Highway, Dover, Delaware 19903, 302/726-5409

District of Columbia (EPA Form), Attention: UST Notification Form, Department of Consumer and Regulatory Affairs, Pesticides and Hazardous Waste Management Branch, Room 114, 5010 Overlook Avenue SW., Washington, DC 20032

Florida (State Form), Florida Department of Environmental Regulation, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399, 904/487-4398

Georgia (EPA Form), Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Program, 3420 Norman Berry Drive, 7th Floor, Hapeville, Georgia 30354, 404/656-7404

Guam (State Form), Administrator, Guam Environmental Protection Agency, P.O. Box 2999, Agana, Guam 96910, Overseas Operator (Commercial call 646-8863)

Hawaii (EPA Form), Administrator, Hazardous Waste Program, 645 Halekauwila Street, Honolulu, Hawaii 96813, 808/548-2270

Idaho (EPA Form), Underground Storage Tank Coordinator, Water Quality Bureau, Division of Environmental Quality, Idaho Department of Health and Welfare, 450 W. State Street, Boise, Idaho 83720, 208/334-4251

Illinois (EPA Form), Underground Storage Tank Coordinator, Division of Fire Prevention, Office of State Fire Marshal, 3150 Executive Park Drive, Springfield, Illinois 62703-4599

Indiana (EPA Form), Underground Storage Tank Program, Office of Environmental Response, Indiana Department of Environmental Management, 105 South Meridian Street, Indianapolis, Indiana 46225

Iowa (State Form), UST Coordinator, Iowa Department of Natural Resources, Henry A. Wallace Building, 900 East Grand, Des Moines, Iowa 50219, 512/281-8135

Kansas (EPA Form), Kansas Department of Health and Environment, Forbes Field, Building 740, Topeka, Kansas 66620, 913/296-1594

Kentucky (State Form), Department of Environmental Protection, Hazardous Waste Branch, Fort Boone Plaza, Building #2, 18 Reilly Road, Frankfort, Kentucky 40601, 501/564-6716

Louisiana (State Form), Secretary, Louisiana Department of Environmental Quality, P.O. Box 44066, Baton Rouge, Louisiana 70804, 501/342-1265

Maine (State Form), Attention: Underground Tanks Program, Bureau of Oil and Hazardous Material Control, Department of Environmental Protection, State House—Station 17, Augusta, Maine 04333

Maryland (EPA Form), Science and Health Advisory Group, Office of Environmental Programs, 201 West Preston Street, Baltimore, Maryland 21201

Massachusetts (EPA Form), UST Registry, Department of Public Safety, 1010 Commonwealth Avenue, Boston, Massachusetts 02215, 617/566-4500

Michigan (EPA Form), Michigan Department of State Police, Fire Marshal Division, General Office Building, 7150 Harris Drive, Lansing, Michigan 48913

Minnesota (State Form), Underground Storage Tank Program, Division of Solid and Hazardous Wastes, Minnesota Pollution Control Agency, 520 West Lafayette Road, St. Paul, Minnesota 55155

Mississippi (State Form), Department of Natural Resources, Bureau of Pollution Control, Underground Storage Tank Section, P.O. Box 10385, Jackson, Mississippi 39209, 601/961-5171

Missouri (EPA Form), UST Coordinator, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102, 314/751-7428

Montana (EPA Form), Solid and Hazardous Waste Bureau, Department of Health and Environmental Science, Cogswell Bldg., Room B-201, Helena, Montana 59620

Nebraska (EPA Form), Nebraska State Fire Marshal, P.O. Box 94677, Lincoln, Nebraska 68509-4677, 402/471-9465

Nevada (EPA Form), Attention: UST Coordinator, Division of Environmental Protection, Department of Conservation and Natural Resources, Capitol Complex 201 S. Fall Street, Carson City, Nevada 89710, 800/992-0900, Ext. 4670, 702/885-4670

New Hampshire (EPA Form), NH Dept. of Environmental Services, Water Supply and Pollution Control Division, Hazen Drive, P.O. Box 95, Concord, New Hampshire 03301, Attention: UST Registration

New Jersey (State Form), Underground Storage Tank Coordinator, Department of Environmental Protection, Division of Water Resources (CN-029), Trenton, New Jersey 08625, 609/292-0424

New Mexico (EPA Form), New Mexico Environmental Improvement Division, Groundwater/Hazardous Waste Bureau, P.O. Box 968, Santa Fe, New Mexico 87504, 505/827-2933

New York (EPA Form), Bulk Storage Section, Division of Water, Department of Environmental Conservation, 50 Wolf Road, Room 326, Albany, New York 12233-0001, 518/457-4351

North Carolina (EPA Form), Division of Environmental Management, Ground-Water Operations Branch, Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, North Carolina 27611, 919/733-3221

North Dakota (State Form), Division of Hazardous Management and Special Studies, North Dakota Department of Health, Box 5520, Bismarck, North Dakota 58502-5520

Northern Mariana Islands (EPA Form), Chief, Division of Environmental Quality, P.O. Box 1304, Commonwealth of Northern Mariana Islands, Saipan, CM 96950, Cable Address: Gov. NMI Saipan, Overseas Operator: 6984

Ohio (State Form), State Fire Marshal's Office, Department of Commerce, 8895 E. Main Street, Reynoldsburg, Ohio 43068, State Hotline: 800/282-1927

Oklahoma (EPA Form), Underground Storage Tank Program, Oklahoma Corporation Comm., Jim Thorpe Building, Oklahoma City, Oklahoma 73105

Oregon (State Form), Underground Storage Tank Program, Hazardous and Solid Waste Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 98204, 503/229-5788

Pennsylvania (EPA Form), PA Department of Environmental Resources, Bureau of Water Quality Management, Ground Water Unit, 9th Floor Fulton Building, P.O. Box 2063, Harrisburg, Pennsylvania 17120

Puerto Rico (EPA Form), Director, Water Quality Control Area, Environmental Quality Board, Commonwealth of Puerto Rico, Santurce, Puerto Rico, 809/725-0717

Rhode Island (EPA Form), UST Registration, Department of Environmental Management, 83 Park Street, Providence, Rhode Island 02903, 401/277-2234

South Carolina (State Form), Ground-Water Protection Division, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, 803/758-5213

South Dakota (EPA Form), Office of Water Quality, Department of Water and Natural Resources, Joe Foss Building, Pierre, South Dakota 57501,

Tennessee (EPA Form), Tennessee Department of Health and Environment, Division of Superfund Underground Storage Tank Section, 150 Ninth Avenue, North, Nashville, Tennessee 37219-5404, 615/741-0690

Texas (EPA Form), Underground Storage Tank Program, Texas Water Commission, P.O. Box 13087, Austin, Texas 78711

Utah (EPA Form), Division of Envirormental Health, P.O. Box 45500, Salt Lake City, Utah 84145-0500

Vermont (State Form), Underground Storage Tank Program, Vermont AEC/Waste Management Division, State Office Building, Montpelier, Vermont 05602, 802/828-3395

Virginia (EPA Form), Virginia Water Control Board, P.O. Box 11143, Richmond, Virginia 23230-1143, 804/257-3685

Virgin Islands (EPA Form), 205(J) Coordinator, Division of Natural Resources Management, 14 F Building 111, Watergut Homes, Christiansted, St. Croix, Virgin Islands 00820

Washington (State Form), Underground Storage Tank Notification, Solid and Hazardous Waste Program, Department of Ecology, M/S PV-11, Olympia, Washington 98504-8711, 206/459-6316

West Virginia (EPA Form), Attention: UST Notification, Solid and Hazardous Waste, Ground Water Branch, West Virginia Department of Natural Resources, 1201 Greenbriar Street, Charleston, West Virginia 25311

Wisconsin (State Form), Bureau of Petroleum Inspection, P.O. Box 7969, Madison, Wisconsin 53707, 608/266-7605

Wyoming (EPA Form), Water Quality Division, Department of Environmental Quality, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002, 307/777-7781.

APPENDIX III TO PART 280—STATEMENT FOR SHIPPING TICKETS AND INVOICES

NOTE.—A Federal law (the Resource Conservation and Recovery Act (RCRA), as amended (Pub. L. 98-616)) requires owners of certain underground storage tanks to notify designated State or local agencies by May 8, 1986, of the existence of their tanks. Notifications for tanks brought into use after May 8, 1986, must be made within 30 days. Consult EPA's regulations, issued on November 8, 1985 (40 CFR Part 280) to determine if you are affected by this law.

PART 281—APPROVAL OF STATE UNDERGROUND STORAGE TANK PROGRAMS

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281.11 General requirements.
281.12 Scope and definitions.

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281.61 Procedures for withdrawal of approval of state programs.

AUTHORITY: Sections 2002, 9004, 9005, 9006 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6912, 6991 (c), (d), (e)).

SOURCE: 53 FR 37241, Sep. 23, 1988, unless otherwise noted.

Subpart A—Purpose, General Requirements and Scope

§ 281.10 Purpose.

(a) This subpart specifies the requirements that state programs must meet for approval by the Administrator under section 9004 of RCRA, and the procedures EPA will follow in approving, revising and withdrawing approval of state programs.

(b) State submissions for program approval must be in accordance with the procedures set out in this part.

(c) A state may apply for approval under this subpart at any time after the promulgation of release detection, prevention, and correction regulations under section 9003 of RCRA.

(d) Any state program approved by the Administrator under this part shall at all times be conducted in accordance with the requirements of this part.

§ 281.11 General requirements.

(a) *State program elements.* The following substantive elements of a state program must be addressed in a state application for approval:

(1) Requirements for all existing and new underground storage tanks:

(i) New UST systems (design, construction, installation, and notification);

(ii) Upgrading of existing UST systems;

(iii) General operating requirements;

(iv) Release detection;

(v) Release reporting, investigation, and confirmation;

(vi) Out-of-service USTs and closure;

(vii) Release response and corrective action; and

(viii) Financial responsibility for UST systems containing petroleum.

(2) Provisions for adequate enforcement of compliance with the above program elements.

(b) *Final approval.* The state must demonstrate that its requirements under each state program element for existing and new UST systems are no less stringent than the corresponding federal requirements as set forth in Subpart C of this part, except as provided in paragraph (c) of this section. The state must also demonstrate that it has a program that provides adequate enforcement of compliance with these requirements.

(c) *Interim approval.* (1) The Administrator may approve state programs with requirements less stringent than the federal requirements for a period of 1 to 3 years from September 23, 1988. Such interim approval may be granted only if state regulatory and/or legislative change is required in order for the state program to be no less stringent than the federal requirements and standards under Part 280 for one or more of the following program elements: Release detection at existing UST systems; release reporting and investigation; and out-of-service or closed UST systems.

(2) A state program may receive interim approval if it:

(i) Has requirements for three elements:

(A) Release Detection;

(B) Release Reporting, Investigation, and Confirmation; and

(C) Out-of-Service UST Systems and Closure; and

(ii) Has requirements that are no less stringent than the corresponding federal requirements for five elements:

(A) New UST System Design, Construction, Installation and Notification;

(B) Upgrading Existing UST Systems;

(C) General Operating Requirements;

(D) Release Response and Corrective Action; and

(E) Financial Responsibility for UST systems containing petroleum; and

(iii) Provides for adequate enforcement of compliance with these requirements.

(3) A state with a program that has received interim approval must receive final approval of an amended program containing program elements that are no less stringent than the corresponding federal program elements under Subpart C in accordance with the following schedule:

(i) If only state regulatory action is required, the state must submit an amended program to EPA for approval before September 23, 1989.

(ii) If only state legislative action is required, the state must submit an amended program to EPA for approval before September 23, 1990.

(iii) If both state legislative and regulatory action are required, the state must submit an amended program to EPA for approval before September 23, 1991.

(d) States with programs approved under this part are authorized to administer the state program in lieu of the federal program and will have primary enforcement responsibility with respect to the requirements of the approved program. EPA retains authority to take enforcement action in approved states as necessary and will notify the designated lead state agency of any such intended action.

§ 281.12 Scope and definitions.

(a) *Scope.* (1) The Administrator may approve either partial or complete state programs. A "partial" state program regulates either solely UST systems containing petroleum or solely UST systems containing hazardous substances. If a "partial" state program is approved, EPA will administer the remaining part of the program. A "complete" state program regulates both petroleum and hazardous substance tanks.

(2) EPA will administer the UST program on Indian lands, except where Congress has clearly expressed an intention to grant a state authority to regulate petroleum and hazardous substance USTs on Indian lands. In either case, this decision will not impair a state's ability to obtain program approval for petroleum and/or hazardous substances on non-Indian lands in accordance with this part.

(3) Nothing in this subpart precludes a state from:

(i) Adopting or enforcing requirements that are more stringent or more extensive than those required under this part; or

(ii) Operating a program with a greater scope of coverage than that required under this part. Where an approved state program has a greater scope of coverage than required by federal law, the additional coverage is not part of the federally-approved program.

(b) *Definitions.* (1) The definitions in Part 280 apply to all subparts of this part.

(2) For the purpose of this part, the term "interim approval" means the approval received by a state program that meets the requirements in § 281.11(c) (1) and (2) for the time period defined in § 281.11(c)(3).

(3) For the purposes of this part the term "final approval" means the approval received by a state program that meets the requirements in § 281.11(b).

Subpart B—Components of a Program Application

§ 281.20 Program application.

Any state that seeks to administer a program under this part must submit an application containing the following parts:

(a) A transmittal letter from the Governor of the state requesting program approval;

(b) A description in accordance with § 281.21 of the state program and operating procedures;

(c) A demonstration of the state's procedures to ensure adequate enforcement;

(d) A schedule for obtaining needed authorities under interim approval, where applicable;

(e) A Memorandum of Agreement outlining roles and responsibilities of EPA and the implementing agency;

(f) An Attorney General's statement in accordance with § 281.25 certifying to applicable state authorities; and

(g) Copies of all applicable state statutes and regulations.

NOTE: EPA has designed an optional application form that is available for use by state applicants.

§ 281.21 Description of state program.

A state seeking to administer a program under this part must submit a description of the program it proposes to administer under state law in lieu of the federal program. The description of a state's existing or planned program must include:

(a) The scope of the state program:

(1) Whether the state program regulates UST systems containing petroleum or hazardous substances, or both;

(2) Whether the state is applying for interim or final approval;

(3) Whether the state program is more stringent or broader in scope than the federal program, and in what ways; and

(4) Whether the state has any existing authority over Indian lands or has existing agreements with Indian tribes relevant to the regulation of underground storage tanks.

(b) The organization and structure of the state and local agencies with responsibility for administering the program. The jurisdiction and responsibilities of all state and local implementing agencies must be delineated, appropriate procedures for coordination set forth, and one state agency designated as a "lead agency" to facilitate communications between EPA and the state.

(c) Staff resources to carry out and enforce the required state program elements, both existing and planned, including the number of employees, agency where employees are located, general duties of the employees, and current limits or restrictions on hiring or utilization of staff.

(d) An existing state funding mechanism to meet the estimated costs of administering and enforcing the required state program elements, and any restrictions or limitations upon this funding.

§ 281.22 Procedures for adequate enforcement.

A state must submit a description of its compliance monitoring and enforcement procedures, including related state administrative or judicial review procedures.

§ 281.23 Schedule for interim approval.

For a state program that must modify its statutory or regulatory requirements for release detection, release reporting and investigation, and out-of-service or closed UST systems in order to be no less stringent than the federal requirements, the plan must include a schedule for making such changes and for submitting an amendment to the state application in accordance with § 281.51.

§ 281.24 Memorandum of agreement.

EPA and the approved state will negotiate a Memorandum of Agreement (MOA) containing proposed areas of coordination and shared responsibilities between the state and EPA and separate EPA and state roles and responsibilities in areas including, but not limited to: Implementation of partial state programs; enforcement; compliance monitoring; EPA oversight; and sharing and reporting of information. At the time of approval, the MOA must be signed by the Regional Administrator and the appropriate official of the state lead agency.

§ 281.25 Attorney General's statement.

(a) A state must submit a written demonstration from the Attorney General that the laws and regulations of the state provide adequate authority to carry out the program described under § 281.21 and to meet other requirements of this part. This statement may be signed by independent legal counsel for the state rather than the Attorney General, provided that such counsel has full authority to independently represent the state Agency in court on all matters pertaining to the state program. This statement must include citations to the specific statutes, administrative regulations, and where appropriate, judicial decisions that demonstrate adequate authority to regulate and enforce requirements for UST systems. State statutes and regulations cited by the state Attorney General must be fully effective when the program is approved.

(b) If a state currently has authority over underground storage tank activities on Indian Lands, the statement must contain an appropriate analysis of the state's authority.

Note: The reporting requirements under this section have been approved by the Office of Management and Budget (OMB) and have been assigned OMB Control Number 2050–0067.

Subpart C—Criteria for No-Less-Stringent

§ 281.30 New UST system design, construction, installation, and notification.

In order to be considered no less stringent than the corresponding federal requirements for new UST system design, construction, installation, and notification, the state must have requirements that ensure all new underground storage tanks, and the attached piping in contact with the ground and used to convey the regulated substance stored in the tank, conform to the following:

(a) Be designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion.

Note: Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate that the state program requirements are no less stringent in this area.

(b) Be provided with equipment to prevent spills and tank overfills when new tanks are installed or existing tanks are upgraded, unless the tank does not receive more than 25 gallons at one time.

(c) All UST system owners and operators must notify the implementing state agency of the existence of any new UST system using a form designated by the state agency.

§ 281.31 Upgrading existing UST systems.

In order to be considered no less stringent than the corresponding federal upgrading requirements, the state must have requirements that ensure existing UST systems will be replaced or upgraded before December 22, 1998, to prevent releases for their operating life due to corrosion, and spills or overfills.

§ 281.32 General operating requirements.

In order to be considered no less stringent than the corresponding federal general operating requirements, the state must have requirements that ensure all new and existing UST systems conform to the following:

(a) Prevent spills and overfills by ensuring that the space in the tank is sufficient to receive the volume to be transferred and that the transfer operation is monitored constantly;

(b) Where equipped with cathodic protection, be operated and maintained by a person with sufficient training and experience in preventing corrosion, and in a manner that ensures that no releases occur during the operating life of the UST system;

NOTE: Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate the state program requirements are no less stringent.

(c) Be made of or lined with materials that are compatible with the substance stored;

(d) At the time of upgrade or repair, be structurally sound and upgraded or repaired in a manner that will prevent releases due to structural failure or corrosion during their operating lives;

(e) Have records of monitoring, testing, repairs, and closure maintained that are sufficient to demonstrate recent facility compliance status, except that records demonstrating compliance with repair and upgrading requirements must be maintained for the remaining operating life of the facility. These records must be made readily available when requested by the implementing agency.

§ 281.33 Release detection.

In order to be considered no less stringent than the corresponding federal requirements for release detection, the state must have requirements that at a minimum ensure all UST systems are provided with release detection that conforms to the following:

(a) *General methods.* Release detection requirements for owners and operators must consist of a method, or combination of methods, that is:

(1) Capable of detecting a release of the regulated substance from any portion of the UST system that routinely contains regulated substances—as effectively as any of the methods allowed under the federal technical standards—for as long as the UST system is in operation. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the speed and reliability with which the release can be detected.

(2) Designed, installed, calibrated, operated and maintained so that releases will be detected in accordance with the capabilities of the method.

(b) *Phase-in of requirements.* Release detection requirements must, at a minimum, be scheduled to be applied at all UST systems:

(1) Immediately when a new UST system is installed:

(2) On an orderly schedule that completes a phase-in of release detection at all existing UST systems (or their closure) before December 21, 1993, except that release detection for the piping attached to any existing UST that conveys a regulated substance under greater than atmospheric pressure must be phased-in before December 22, 1990.

(c) *Requirements for petroleum tanks.* All petroleum tanks must be sampled, tested, or checked for releases at least monthly, except that:

(1) New or upgraded tanks (that is, tanks and piping protected from releases due to corrosion and equipped with both spill and overfill prevention devices) may temporarily use monthly inventory control (or its equivalent) in combination with tightness testing (or its equivalent) conducted every 5 years for the first 10 years after the tank is

installed or upgraded or until December 22, 1998, whichever is later; and

(2) Existing tanks unprotected from releases due to corrosion or without spill and overfill prevention devices may use monthly inventory control (or its equivalent) in combination with annual tightness testing (or its equivalent) until December 22, 1998.

(d) *Requirements for petroleum piping.* All underground piping attached to the tank that routinely conveys petroleum must conform to the following:

(1) If the petroleum is conveyed under greater than atmospheric pressure:

(i) The piping must be equipped with release detection that detects a release within an hour by restricting or shutting off flow or sounding an alarm; and

(ii) The piping must have monthly monitoring applied or annual tightness tests conducted.

(2) If suction lines are used:

(i) Tightness tests must be conducted at least once every 3 years, unless a monthly method of detection is applied to this piping; or

(ii) The piping is designed to allow the contents of the pipe to drain back into the storage tank if the suction is released and is also designed to allow an inspector to immediately determine the integrity of the piping system.

(e) *Requirements for hazardous substance UST systems.* All UST systems storing hazardous substances must meet the following:

(1) All existing hazardous substance UST systems must comply with all the requirements for petroleum UST systems in paragraphs (c) and (d) of this section and after December 22, 1998, they must comply with the following paragraph (e)(2) of this section.

(2) All new hazardous substance UST systems must use interstitial monitoring within secondary containment of the tanks and the attached underground piping that conveys the regulated substance stored in the tank, unless the owner and operator can demonstrate to the state (or the state otherwise determines) that another method will detect a release of the regulated substance as effectively as other methods allowed under the state program for petroleum UST systems and that effective corrective action technology is available for the hazardous substance being stored that can be used to protect human health and the environment.

§ 281.34 Release reporting, investigation, and confirmation.

In order to be considered no less stringent than the corresponding federal requirements for release reporting, investigation, and confirmation, the state must have requirements that ensure all owners and operators conform with the following:

(a) Promptly investigate all suspected releases, including:

(1) When unusual operating conditions, release detection signals and environmental conditions at the site suggest a release of regulated substances may have occurred; and

(2) When required by the implementing agency to determine the source of a release having an impact in the surrounding area; and

(b) Promptly report all confirmed underground releases and any spills and overfills that are not contained and cleaned up.

(c) Ensure that all owners and operators contain and clean up unreported spills and overfills in a manner that will protect human health and the environment.

§ 281.35 Release response and corrective action.

In order to be considered no less stringent than the corresponding federal requirements for release response and corrective action, the state must have requirements that ensure:

(a) All releases from UST systems are promptly assessed and further releases are stopped;

(b) Actions are taken to identify, contain and mitigate any immediate health and safety threats that are posed by a release (such activities include investigation and initiation of free product removal, if present);

(c) All releases from UST systems are investigated to determine if there are impacts on soil and ground water, and any nearby surface waters. The extent of soil and ground water contamination must be delineated when a potential threat to human health and the environment exists.

(d) All releases from UST systems are cleaned up through soil and ground water remediation and any other steps, as necessary to protect human health and the environment;

(e) Adequate information is made available to the state to demonstrate that corrective actions are taken in accordance with the requirements of paragraphs (a) through (d) of this section. This information must be submitted in a timely manner that demonstrates its technical adequacy to protect human health and the environment; and

(f) In accordance with § 280.67, the state must notify the affected public of all confirmed releases requiring a plan for soil and ground water remediation, and upon request provide or make available information to inform the interested public of the nature of the release and the corrective measures planned or taken.

§ 281.36 Out-of-service UST systems and closure.

In order to be considered no less stringent than the corresponding federal requirements for temporarily closed UST systems and permanent closure, the state must have requirements that ensure UST systems conform with the following:

(a) Removal from service. All new and existing UST systems temporarily closed must:

(1) Continue to comply with general operating requirements, release reporting and investigation, and release response and corrective action;

(2) Continue to comply with release detection requirements if regulated substances are stored in the tank;

(3) Be closed off to outside access; and

(4) Be permanently closed if the UST system has not been protected from corrosion and has not been used in one year, unless the state approves an extension after the owner and operator conducts a site assessment.

(b) Permanent closure of UST systems. All tanks and piping must be cleaned and permanently closed in a manner that eliminates the potential for safety hazards and any future releases. The owner or operator must notify the state of permanent UST system closures. The site must also be assessed to determine if there are any present or were past releases, and if so, release response and corrective action requirements must be complied with.

(c) All UST systems taken out of service before the effective date of the federal regulations must permanently close in accordance with paragraph (b) of this section when directed by the implementing agency.

§ 281.37 Financial responsibility for UST systems containing petroleum.

(a) In order to be considered no less stringent than the federal requirements for financial responsibility for UST systems containing petroleum, the state requirements for financial responsibility for petroleum UST systems must ensure that:

(1) Owners and operators have $1 million per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(2) Owners and operators not engaged in petroleum production, refining, and marketing and who handle a throughput of 10,000 gallons of petroleum per month or less have $500,000 per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(3) Owners and operators of 1 to 100 petroleum USTs must have an annual aggregate of $1 million; and

(4) Owners and operators of 101 or more petroleum USTs must have an annual aggregate of $2 million.

(b) Phase-in of requirements. Financial responsibility requirements for petroleum UST systems must, at a minimum, be scheduled to be applied at all UST systems on an orderly schedule that completes a phase-in of the financial responsibility requirements within 21 months after the effective date of the federal regulations.

(c) States may allow the use of a wide variety of financial assurance mechanisms to meet this requirement. Each financial mechanism must meet the following criteria in order to be no less stringent than the federal requirements. The mechanism must: Be valid and enforceable; be issued by a provider that is qualified or licensed in the state; not permit cancellation without allowing the state to draw funds; ensure that funds will only and directly be used for corrective action and third party liability costs; and require that the provider notify the owner or operator of any circumstances that would impair or suspend coverage.

(d) States must require owners and operators to maintain records that demonstrate compliance with the state financial responsibility requirements, and these records must be made readily available when requested by the implementing agency.

[53 FR 43382, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988; 54 FR 38788, Sept. 20, 1989]

§ 281.38 Financial responsibility for USTs containing hazardous substances. [Reserved]

Subpart D—Adequate Enforcement of Compliance

§ 281.40 Requirements for compliance monitoring program and authority.

(a) Any authorized representative of the state engaged in compliance inspections, monitoring, and testing must have authority to obtain by request any information from an owner or operator with respect to the UST system(s) that is necessary to determine compliance with the regulations.

(b) Any authorized representative of the state must have authority to require an owner or operator to conduct monitoring or testing.

(c) Authorized representatives must have the authority to enter any site or premises subject to UST system regulations or in which records relevant to the operation of the UST system(s) are kept, and to copy these records, obtain samples of regulated substances, and inspect or conduct the monitoring or testing of UST system(s).

(d) State programs must have procedures for receipt, evaluation, retention, and investigation of records and reports required of owners or operators and must provide for enforcement of failure to submit these records and reports.

(e)(1) State programs must have inspection procedures to determine, independent of information supplied by regulated persons, compliance with program requirements, and must provide for enforcement of failure to comply with the program requirements. States must maintain a program for systematic inspections of facilities subject to regulations in a manner designed to determine compliance or non-compliance, to verify accuracy of information submitted by owners or operators of regulated USTs, and to verify adequacy of methods used by owners or operators in developing that information.

(2) When inspections are conducted, samples taken, or other information gathered, these procedures must be conducted in a manner (for example, using proper "chain of custody" procedures) that will produce evidence admissible in an enforcement proceeding, or in court.

(f) Public effort in reporting violations must be encouraged and the state enforcement agency(ies) must make available information on reporting procedures. State programs must maintain a program for investigating information obtained from the public about suspected violations of UST program requirements.

(g) The state program must maintain the data collected through inspections and evaluation of records in such a manner that the implementing agency can monitor over time the compliance status of the regulated community. Any compilation, index, or inventory of such facilities and activities shall be made available to EPA upon request.

§ 281.41 Requirements for enforcement authority.

(a) Any state agency administering a program must have the authority to implement the following remedies for violations of state program requirements:

(1) To restrain immediately and effectively any person by order or by suit in state court from engaging in any unauthorized activity that is en-

dangering or causing damage to public health or the environment;

(2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement;

(3) To assess or sue to recover in court civil penalties as follows:

(i) Civil penalties for failure to notify or for submitting false information pursuant to tank notification requirements must be capable of being assessed up to $5,000 or more per violation.

(ii) Civil penalties for failure to comply with any state requirements or standards for existing or new tank systems must be capable of being assessed for each instance of violation, up to $5,000 or more for each tank for each day of violation. If the violation is continuous, civil penalties shall be capable of being assessed up to $5,000 or more for each day of violation.

(b) The burden of proof and degree of knowledge or intent required under state law for establishing violations under paragraph (a)(3) of this section, must be no greater than the burden of proof or degree of knowledge or intent that EPA must provide when it brings an action under Subtitle I of the Resource Conservation and Recovery Act.

(c) A civil penalty assessed, sought, or agreed upon by the state enforcement agency(ies) under paragraph (a)(3) of this section must be appropriate to the violation.

§ 281.42 Requirements for public participation.

Any state administering a program must provide for public participation in the state enforcement process by providing any one of the following three options:

(a) Authority that allows intervention analogous to Federal Rule 24(a)(2), and assurance by the appropriate state enforcement agency that it will not oppose intervention under the state analogue to Rule 24(a)(2) on the ground that the applicant's interest is adequately represented by the State.

(b) Authority that allows intervention as of right in any civil action to obtain the remedies specified in § 281.41 by any citizen having an interest that is or may be adversely affected; or

(c) Assurance by the appropriate state agency that:

(1) It will provide notice and opportunity for public comment on all proposed settlements of civil enforcement actions (except where immediate action is necessary to adequately protect human health and the environment);

(2) It will investigate and provide responses to citizen complaints about violations; and

(3) It will not oppose citizen intervention when permissive intervention is allowed by statute, rule, or regulation

§ 281.43 Sharing of information.

(a) States with approved programs must furnish EPA, upon request, any information in state files obtained or used in the administration of the state program. This information includes:

(1) Any information submitted to the state under a claim of confidentiality. The state must submit that claim to EPA when providing such information. Any information obtained from a state and subject to a claim of confidentiality will be treated in accordance with federal regulations in 40 CFR Part 2; and

(2) Any information that is submitted to the state without a claim of confidentiality. EPA may make this information available to the public without further notice.

(b) EPA must furnish to states with approved programs, upon request, any information in EPA files that the state needs to administer its approved state program. Such information includes:

(1) Any information that is submitted to EPA without a claim of confidentiality; and

(2) Any information submitted to EPA under a claim of confidentiality, subject to the conditions in 40 CFR Part 2.

Subpart E—Approval Procedures

§ 281.50 Approval procedures for state programs.

(a) The following procedures are required for all applications, regardless of whether the application is for a partial or complete program, as defined in § 281.12, or for interim or final approval in accordance with § 281.11.

(b) Before submitting an application to EPA for approval of a state program, the state must provide an opportunity for public notice and comment in the development of its underground storage tank program.

(c) When EPA receives a state program application, EPA will examine the application and notify the state whether its application is complete, in accordance with the application components required in § 281.20. The 180-day statutory review period begins only after EPA has determined that a complete application has been received.

(d) The state and EPA may by mutual agreement extend the review period.

(e) After receipt of a complete program application, the Administrator will tentatively determine approval or disapproval of the state program. EPA shall issue public notice of the tentative determination in the FEDERAL REGISTER; in enough of the largest newspapers in the state to attract statewide attention; and to persons on the state agency mailing list and any other persons who the agency has reason to believe are interested. Notice of the tentative determination must also:

(1) Afford the public 30 days after the notice to comment on the state's application and the Administrator's tentative determination; and

(2) Include a general statement of the areas of concern, if the Administrator indicates the state program may not be approved; and

(3) Note the availability for inspection by the public of the state program application; and

(4) Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination unless insufficient public interest is expressed, at which time the Regional Administrator may cancel the public hearing.

(f) Within 180 days of receipt of a complete state program application, the Administrator must make a final determination whether to approve the state program after review of all public comments. EPA will give notice of its determination in the FEDERAL REGISTER and codify the approved state program. The notice must include a statement of the reasons for this determination and a response to significant comments received.

§ 281.51 Amendment required at end of interim period.

(a) State programs that meet the requirements of section 281.11(c) (1) and (2) may be approved for 1 to 3 years from September 23, 1988. States that receive such interim approval must adopt requirements that are no less stringent than the corresponding federal requirements and standards within the timeframes specified under § 281.11(c)(3).

(b) By the end of the specified time period, a state with interim approval must submit to EPA an amendment to its application that includes all modified and new requirements for any of the elements containing less stringent requirements. Such amended applications must also include a modified program description, an Attorney General's statement and a Memorandum of Agreement that incorporate the amended program requirements, and copies of all applicable state statutes and regulations.

(c) Upon receipt of the application amendment, the Administrator shall follow the same review and approval procedures as required in § 281.50.

(d) If a state fails to submit an amendment within the specified timeframe, the interim approval of the state program expires upon the applicable date established under § 281.11(c), and the Subtitle I program automatically reverts to EPA.

(e) If a state submits an amendment to the program application within the timeframe specified under § 281.11(c)(3) and the amendmant is disapproved after the end of the time period, the interim approval of the state program expires immediately upon disapproval and the Subtitle I program automatically reverts to EPA.

(f) If interim approval of the state program expires, EPA must notify the regulated community and the public of the re-establishment of the federal program through a notice in the FEDERAL REGISTER.

§ 281.52 Revision of approved state programs.

(a) Either EPA or the approved state may initiate program revision. Program revision may be necessary when the controlling federal or state statutory or regulatory authority is changed or when responsibility for the state program is shifted to a new agency or agencies. The state must inform EPA of any proposed modifications to its basic statutory or regulatory authority or change in division of responsibility among state agencies. EPA will determine in each case whether a revision of the approved program is required.

(b) Whenever the Administrator has reason to believe that circumstances have changed with respect to an approved state program or the federal program, the Administrator may request, and the state must provide, a revised application as prescribed by EPA.

(c) The Administrator will approve or disapprove program revisions based on the requirements of this Part and of Subtitle I pursuant to the procedures under this section, or under section 281.50 if EPA has reason to believe the proposed revision will receive significant negative comment from the public.

(1) The Administrator must issue public notice of planned approval or disapproval of a state program revision in the FEDERAL REGISTER; in enough of the largest newspapers in the state to attract statewide attention; and by mailing to persons on the state agency mailing list and to any other persons who the agency has reason to believe are interested. The public notice must summarize the state program revision, indicate whether EPA intends to approve or disapprove the revision, and provide for an opportunity to comment for a period of 30 days.

(2) The Administrator's decision on the proposed revision becomes effective 60 days after the date of publication in the FEDERAL REGISTER in accordance with paragraph (c)(1) of this section, unless significant negative comment opposing the proposed revision is received during the comment period. If significant negative comment is received, EPA must notify the state and within 60 days after the date of publication, publish in the FEDERAL REGISTER either:

(i) A withdrawal of the immediate final decision, which will then be treated as a tentative decision in accordance with the applicable procedures of § 281.50 (e) and (f); or

(ii) A notice that contains a response to significant negative comments and affirms either that the immediate final decision takes effect or reverses the decision.

(d) Revised state programs that receive approval must be codified in the FEDERAL REGISTER.

Subpart F—Withdrawal of Approval of State Programs

§ 281.60 Criteria for withdrawal of approval of state programs.

(a) The Administrator may withdraw program approval when the Agency determines that a state no longer has adequate regulatory or statutory authority or is not administering and enforcing an approved program in accordance with this part. The state must have adequate capability to administer and enforce the state program. In evaluating whether such capability exists, the Agency will consider whether the state is implementing an adequate enforcement program by evaluating the quality of compliance monitoring and enforcement actions.

(b) Such withdrawal of approval will occur only after the state fails to take appropriate action within a reasonable time, not to exceed 120 days after notice from the Administrator that the state is not administering and enforcing its program in accordance with the requirements of this part.

§ 281.61 Procedures for withdrawal of approval of state programs.

(a) The following procedures apply when a state with an approved program voluntarily transfers to EPA those program responsibilities required by federal law.

(1) The state must give EPA notice of the proposed transfer, and submit, at least 90 days before the transfer, a plan for the orderly transfer of all relevant program information necessary for EPA to administer the program.

(2) Within 30 days of receiving the state's transfer plan, EPA must evaluate the plan and identify any additional information needed by the federal government for program administration.

(3) At least 30 days before the transfer is to occur, EPA must publish notice of the transfer in the FEDERAL REGISTER; in enough of the largest newspapers in the state to attract statewide attention; and to persons on appropriate state mailing lists.

(b) When EPA begins proceedings to determine whether to withdraw approval of a state program (either on its own initiative or in response to a petition from an interested person), withdrawal proceedings must be conducted in accordance with procedures set out in 40 CFR 271.23 (b) and (c), except for § 271.23(b)(8)(iii) to the extent that it deviates from requirements under § 281.60.

PARTS 282—299 [RESERVED]

FINDING AIDS

A list of CFR titles, subtitles, chapters, subchapters and parts and an alphabetical list of agencies publishing in the CFR are included in the CFR Index and Finding Aids volume to the Code of Federal Regulations which is published separately and revised annually.

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Material Approved for Incorporation by Reference

(Revised as of June 30, 1989)

The Director of the Federal Register has approved under 5 U.S.C. 552(a) and 1 CFR Part 51 the incorporation by reference of the following publications. This list contains only those incorporations by reference effective as of the revision date of this volume. Incorporations by reference found within a regulation are effective upon the effective date of that regulation. For more information on incorporation by reference, see the preliminary pages of this volume.

40 CFR CHAPTER I (PART 233): SUBCHAPTER H—OCEAN DUMPING

ENVIRONMENTAL PROTECTION AGENCY

	40 CFR
State Statutes and Regulations	
Michigan: (1) The Great Lakes Submerged Lands Act, MCL 322.701 *et seq.*, reprinted in Michigan 1983 Natural Resources Law; (2) The Water Resources Commission Act, MCL 323.1 *et seq.*, reprinted in Michigan 1983 Natural Resources Law; (3) The Goemaere-Anderson Wetland Protection Act, MCL 281.701 *et seq.*, reprinted in Michigan 1983 Natural Resources Law; (4) The Inland Lakes and Stream Act, MCL 281.951 *et seq.*, reprinted in Michigan 1983 Natural Resources Law; (5) Michigan Administrative Procedures Act of 1969, MCL 24.201 *et seq.;* (6) An act concerning the Erection of Dams, MCL 281.131 *et seq.*, reprinted in Michigan 1983 Natural Resources Law; (7) R 281.811 through R 281.819 inclusive, R 281.821, R 281.823, R 281.824, R 281.832 through R 281.839 inclusive, and R 281.841 through R 281.845 inclusive of the Michigan Administrative Code (1979 ed., 1982 Supp.).	233.42

40 CFR CHAPTER I (PARTS 260, 261, 264, 265, 268, AND 270): SUBCHAPTER I-SOLID WASTES

ENVIRONMENTAL PROTECTION AGENCY

	40 CFR
American Society for Testing Materials 1916 Race St., Philadelphia, PA 19103	
ASTM D 93-80 Flash Point by Pennsky-Martens Closed Tester	261.21(a)(1)
ASTM D 3278-78 Flash Point for Liquids by Setaflash Closed Tester	261.21(a)(1)
Environmental Protection Agency Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460	
Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, 2nd Edition, 1982 (EPA publication SW-846), as amended by Update I (April, 1984) and Update II (April, 1985).	260.11(a); 261.22(a)(1) and (2); Part 261, Appendices II and III; 270.6(a)
Method 9095 (Paint Filter Liquids Test	268.32(i)
National Fire Protection Association Batterymarch Park, Quincy, MA 02269	
Flammable and Combustible Liquids Code, 1981	264.198(b); 265.198(b)

40 CFR CHAPTER I (PART 272): APPROVED STATE HAZARDOUS WASTE MANAGEMENT PROGRAMS

ENVIRONMENTAL PROTECTION AGENCY

State Statutes and Regulations	
Delaware: (1) 7 Delaware Code Annotated sections 6301–6307 and 6310–6317 (Replacement Volume 1983); (2) Delaware Department of Natural Resources and Environmental Control regulations governing hazardous waste parts 260–265, 122, 124 and Order Number 83–SW–1, July 28, 1983.	272.401
Michigan: (1) Michigan Compiled Laws Annotated, Sections 299.501–506, 299.521–522, 299.532–535, 299.537, and 299.539–541 (P.A. 64 of 1979 as amended by P.A. 486 of 1982, effective March 30, 1983); (2) Michigan Administrative Code Rules 299.9101–9208(1), 299.9208(3)–9209(1), 299.9209(4)–9209(5), 299.9210(2)–9211(1)(a), 299.9211(2)–9213(1)(b), 299.9213(2)–9216, 299.9218, 299.9301–9304(1)(b), 299.9304(1)(d)–9401(5), 299.9402, 299.9404(1), 299.9404(1)(b)–9405, 299.9407, 299.9409–9410, 299.9501–9504(1), 299.9504(1)(b)–9506, 299.9508(1)(g), 299.9508(1)(i)–9521(1)(b), 299.9521(2)–9522, 299.9601–9611(2)(a), 299.9611(3)–9622, 299.9623(2)–9710, 299.9801–9804, and 299.11001–11008 (1985 Annual Michigan Administrative Code Supplement)..	272.1151(a)
Missouri: (1) Missouri Revised Statutes, Chapter 260, sections 260.350–260.360(11), 260.360(13)—260.360(18), 260.380–1—260.380–1.(9), 260.380–2—260.385 (un-numbered first paragraph), 260.385(2)—260.390(7), 260.390(9), 260.395–6—260.395–7.(4), 260.395–7.(7)—260.395–18, (1986); (2) Missouri Code of State Regulations, Title 10, Division 25, sections 3.260—3.260(1)(A)19., 3.260(1)(A)21.—3.260(1)(A)22., 3.260(2), 4.261—4.261(2)(A)4., 4.261(2)(D)3, 5.262—5.262(2)(B)1., 5.262(2)(B)3.—5.262(2)(F), 6.263—6.263(2)(A)2, 6.263(2)(A)5.—6.263(2)(D), 7.264—7.264(2)(0)3., 7.264(2)(Q), 7.265, 7.266—7.266(2)(D), 7.266(2)(D)2, 7.270—7.270(2)(B)6., 7.270(2)(B)9.—7.270(2)(B)13., 7.270(2)(C)—7.270(2)(C)1.A. The un-numbered first sentence before the phrase "upon payment of a fee ... the first year."), 7.270(2)(C)1.A. (The un-numbered second sentence)—2.270.(2)(C)1.C., 7.270(2)(C)2.—7.270(2)2.E., 7.270(2)(D)—7.270(2)(G) (as effective August 1, 1987)..	272.1301(a)
Montana: (1) Montana Hazardous Waste Act, Montana Code Annotated sections 75–10–401 through 75–10–413 and 75–10–419 through 75–10–421 (1983); (2) Administrative Rules of Montana, Health and Environmental Sciences, sections 16.44.101 through 16.44.911 (1983) and the amendments to sections 16.44.104.106, 108, 109, 202, 811, 817 and 819 adopted on January 16, 1984.	272.1351
Ohio: (1) *Ohio Administrative Code*, Volume 4, Chapter 3745 (June 30, 1988), Sections: 50–01; 50–03; 50–10; 50–11; 50–31 through 50–32; 50–40 through 50–44(C)(3)(j); 50–44(C)(4) through 50–44(C)(4)(k); 50–44(C)(5) through 50–44(C)(5)(h); 50–44(C)(6) through 50–44(7)(i); 50–44(C)(8) through 51–03(C)(2)(b)(i); 51–03(D) through 51–03(E); 51–04 through 51–05(D)(2); 51–05(E) through 51–05(F)(2); 51–05(G) through 51–05(I); 51–06(A)(1) through 51–06(A)(3)(g); 51–06(B) through 52–20(E); 52–20 Appendix I through 52–34(C)(2); 52–40 through 52–43; 52–50 through 53–10; 53–11(D) through 53–20(G); 53–21 through 55–99; 56–20 through 56–31; 56–50 through 56–59; 56–70 through 56–82; 57–01 through 57–14(B); 57–15 through 57–17; 57–40 through 58–40; 58–43 through 58–44; 58–45(C); 58–46(C); 58–60 through 65–01(C); 65–10 through 68–14(C); 68–15 through 68–51; 68–70 through 68–82; 69–01 through 69–30, as supplemented by 1988–1989 *Ohio Monthly Record*, as applicable to the sections above, pp. 430–495 (November 1988) and pp. 848–868 (February 1989)..	272.1801(a)

40 CFR CHAPTER I (PART 272): APPROVED STATE HAZARDOUS WASTE MANAGEMENT PROGRAMS—Continued

ENVIRONMENTAL PROTECTION AGENCY—Continued

Wisconsin: (1) Wisconsin Administrative Code, Volume 12, Sections NR: 181.01–181.02; 181.04–181.05; 181.06(3)–181.07; 181.09; 181.11–181.12(3); 181.12(4)(b)–181.27; 181.31(2)–181.47; 181.49–181.54; 181.55(2); 181.55(4)–181.55(10); Appendix 1; and Appendix 2 (effective July 1, 1985). (2) Wisconsin Statutes, Volume 3, Sections: 144.01; 144.43–433; 144.44 (except 144.44(4)(a)); 144.441(1)–(2); 144.441(3)(b), (d), (f), and (g); 144.441(4)(a) and (c)–(g); 144.441(5)(b)–(d); 144–441(6); 144.442(1) and (4)–(11); 144.443; 144.444; 144.60–144.63, and; 144.64(2) and (3) (except for 144.64(2)(e)(1)) (1985–86)..	272.2501(a)

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Distribution Tables

The Environmental Protection Agency reorganized permit program requirements governing the Hazardous Waste Management program at 48 FR 14146, April 1, 1983. The reorganized regulations concern the National Pollutants Discharge Elimination System (NPDES), Underground Injection Control (UIC), Dredge or Fill (404), and Resource Conservation and Recovery Act (RCRA) Programs. Part 122 was distributed into applicable portions of new Parts 122, 144, 233, and 270. Part 123 was distributed into applicable portions of new Parts 123, 145, 233, and 271.

The following tables show the relationship of the old CFR sections in Parts 122 and 123 to the new CFR sections in Parts 233, 270, and 271.

404 PROGRAM

Old section	New section
What are the consolidated permit regulations? (Purpose and scope of Part 233).	
122.1	233.1.
122.1(a)	233.1(a).
122.1(b)(1) (i)–(iii)	233.1(b) (1)–(4).
122.1(b) (2)–(4)	Removed.
122.1(c) (1)–(2)	233.1(c) (1)–(2).
122.1(d)	Removed.
122.1(e)	233.1(d).
122.1(f)	233.1(e).
Purpose and scope	
122.2	233.2.
122.2(a)	233.2.
122.2(b)	Removed.
Definitions	
122.3	233.3.
Application for a permit	
122.4	233.4.
122.4(a)	233.4(b).
122.4(b)	233.4(c).
122.4(c)	233.4(d).
122.4(d)	233.4(e).
122.4(e)	233.4(f).
Continuation of expiring permits	
122.5	233.5.
122.5 (a)–(c)	Removed.
122.5(d)	233.5.
Signatories to permit application and reports	
122.6	233.6.
122.6 (a)–(d)	233.6 (a)–(d).
Conditions applicable to all permits	
122.7	233.7.
122.7 (a)–(l)	233.7 (a)–(l).
Establishing permit conditions	
122.8	233.8.
122.8 (a)–(b)	233.8 (a)–(b).
122.8(c)	233.8(d).
Duration of permits	
122.9	233.9.
122.9(a)	233.9(a).
122.9 (b)–(c)	Removed.
122.9 (d)–(e)	233.9 (b)–(c).
Schedules of compliance	
122.10	233.10.
122.10(a)	233.10(a).
122.10(a)(1)	233.10(a)(1).
122.10(a)(1) (i) and (ii)	Removed.
122.10(a)(2)	Removed.
122.10(a)(3)	233.10(a)(2).
122.10(a)(4)	233.10(a)(3).
122.10(b)	Removed.
Requirements for recording and reporting of monitoring results	
122.11	233.11.
122.11 (a)–(c)	233.11 (a)–(c).
Consideration under Federal law	
122.12	Removed.
Effect of a permit	
122.13	233.12.
122.13 (a)–(b)	233.12 (a)–(b).
122.13(c)	Removed.
Transfer of permits	
122.14	233.13.
122.14(a)	233.13.
122.14(b)	Removed.
Modification or revocation and reissuance of permits	
122.15	233.14.
122.15(a)(1)–(2)	233.14(a)(1)–(2).
122.15(a)(3)(i)–(ii)	233.14(a)(3)(i)–(ii).
122.15(a)(3)(iii)	Removed.
122.15(a)(4)	233.14(a)(4).
122.15(a)(5)	Removed.
122.15(a)(6)	233.14(a)(5).
122.15(b)	233.14(b).
122.15(c)	Removed.

Distribution Tables

Old section	New section
Termination of permits	
122.16	233.15.
122.16(a)(1)	233.15(a).
122.16(a)(2)	233.15(b).
122.16(a)(3)	233.15(c).
122.16(a)(4)	233.15(d).
122.16(b)	Removed.
Minor modification of permits	
122.17	233.16.
122.17(a)–(d)	233.16(a)–(d).
122.17(e)–(g)	Removed.
122.17(h)	233.16(e).
Noncompliance and program reporting by the director	
122.18	233.17.
122.18(a)	Removed.
122.18(b)	233.17(a).
122.18(c)	Removed.
122.18(d)	233.17(b).
122.18(e)	233.17(c).
Confidentiality of information	
122.19	233.18.
122.19(a)	Removed.
122.19(b)(1)	233.18(a)(1).
122.19(b)(2)–(3)	Removed.
122.19(b)(4)	233.18(a)(3).
122.19(c)–(d)	Removed.
Purpose and scope	
123.1	233.20.
123.1(a)	233.20(a).
123.1(b)	Removed.
123.1(c)	233.20(b).
123.1(d)	233.20(c).
123.1(e)	233.20(d).
123.1(f)	233.20(e).
123.1(g)	233.20(f).
123.1(h)	233.20(g).
123.1(i)	233.20(h).
123.1(j)	233.20(i).
123.1(k)	233.20(j).
Definitions	
123.2	Removed.
Elements of a program submission	
123.3	233.21.
123.3(a)–(d)	233.21(a)–(d).
Program description	
123.4	233.22.
123.4(a)–(e)	233.22(a)–(e).
123.4(f)–(g)	Removed.
123.4(h)(1)–(8)	233.22(f)–(m).
Attorney General's statement	
123.5	233.23.
123.5(a)–(h)	233.23(a)–(b).
123.5(c)	Removed.
123.5(d)	233.23(c).
Memorandum of agreement with the Regional Administrator	
123.6	233.24.
123.6(a)	233.24(a).
123.6(b)(1)	Removed.
123.6(b)(2)–(3)	233.24(b)(1)–(2).
123.6(b)(4)	233.24(b)(3.)
123.6(b)(5)	Removed.
123.6(b)(6)	233.24(b)(4.)
123.6(c)	233.24(c).
123.6(d)	Removed.
123.6(e)	Removed.
123.6(f)	233.24(d).
123.6(g)	233.24(e).
Requirements for permitting	
123.7	233.26.
123.7(a)	233.26(a).
123.7(b)–(d)	Removed.
123.7(e)	233.26(b).
Requirements for enforcement evaluation programs	
123.8	233.27.
123.8(a)–(d)	233.27(a)–(d).
123.8(e)	Removed.
Requirements for enforcement authority	
123.9	233.28.
123.9(a)(3)	233.28(a)(4).
123.9(a)(3)(i)–(ii)	Removed.
123.9(a)(3)(iii)	233.28(a)(4)(i).
Sharing of information	
123.10	233.29.
Coordination with other programs	
123.11	233.30.
Approval process	
123.12	233.31.
Procedures for revision of State programs	
123.13	233.32.
123.13(a)–(d)	233.32(a)–(d.)
123.13(e)–(g)	Removed.
123.13(h)	233.32(e).
Criteria for withdrawal of State programs	
123.14	233.33.
Procedures for withdrawal of State programs	
123.15	233.34.
Purpose and scope	
123.91	
123.91(a)	Removed.
123.91(b)	Removed.
123.91(c)	233.20(i).
123.91(d)	233.37(d).
Activities not requiring permits	
123.92	233.35.
Prohibitions	
123.93	233.36.
Applications for a permit	
123.94	233.4.
123.94(a)	233.4(a).
123.94(b)	233.4(b).
123.94(c)	233.4(e).
General permits	
123.95	233.37.
Emergency permits	
123.96	233.38.
Permit conditions	
123.97	233.7.
123.97(a)–(d)	233.7(m)–(p).
Establishing permit conditions	
123.98	233.8.
123.98(a)–(g)	233.8(c)(1)–(7).
Memorandum of agreement with the Secretary	
123.99	233.25.

Old section	New section
Transmission of information to EPA and other Federal agencies	
123.100	233.39.
EPA review of and objections to State permits	
123.101	233.40.
Coordination requirements	
123.102	233.41.
Enforcement authority	
123.103	233.28(a)(3)
Approval process	
123.104	233.31.

RCRA PROGRAM

Old section	New section
What are the consolidated permit regulations?	
122.1	270.1.
(a)(1)	(a)(1).
(a)(ii)–(e)	Removed.
Purpose and scope of Part 122	
122.2	270.1.
(b)	Removed.
Definitions	
122.3	270.2.
Application for a permit	
122.4	270.10.
(a)–(c)	(a)–(c).
(d)	(d).
(d)(1)–(d)(4)	270.13(a)–(d).
(d)(5)	270.13(f).
(d)(6)–(d)(8)	270.13(k)–(m).
(e)	270.10(i).
Continuation of expiring permits	
122.5	270.51.
Signatories to permit applications and reports	
122.6	270.11.
Conditions applicable to all permits	
122.7	270.30.
(1)(7)–(1)(8)	(1)(10)–(1)(11).
Establishing permit conditions	
122.8	270.32.
(a)–(b)	(a).
(b)(2)–(3)	(c)–(d).
(c)	(e).
Duration of permits	
122.9	270.50.
(b)	(a).
(d)	(b).
(e)	(c).
Schedules of compliance	
122.10	270.33.
(a)(3)–(4)	(a)(2)–(3).
Requirements for recording and reporting of monitoring results	
122.11	270.31.
Consideration under Federal law	
122.12	270.3.
Effect of a permit	
122.13	270.4.
Transfer of permits	
122.14	270.40.
Modification or revocation and reissuance of permits	
122.15	270.41.
(a)(7)	(a)(5).
Termination of permits	
122.16	270.43.
Minor modifications of permits	
122.17	270.42.
(e)(1)–(8)	(e)–(n).
Noncompliance and program reporting by the Director	
122.18	270.5.
(c)	(b).
(c)(3)	(b)(2).
(e)	(c).
Confidentiality of information	
122.19	270.12.
(b)(1)	(b).
References	
122.20	270.6.
Purpose and scope of Subpart B	
122.21	270.1.
(a)	Removed.
(b)(1)–(b)(7)	(a)(3).
(b)(8)	(a)(2).
(c)–(d)	(b)–(c).
(d)(2)(v)	Removed.
(d)(2)(vi)–(viii)	(c)(2)(v)–(vii).
Application for a permit	
122.22	270.10.
(a)–(d)	(e)–(h).
Interim status	
122.23	270.70—270.73.
Qualifying for interim status	
(a)	270.70.
Coverage	
(b)	270.71(a).
Changes during interim status	
(c)	270.72.
Interim status standards	
(d)	270.71(b).
Grounds for termination	
(e)	270.73.
Contents of Part A of the RCRA permit application	
122.24	270.13.
(a)	(b).
(b)	(e).
(c)–(g)	(g)–(j).
Contents of Part B of the RCRA permit application	
122.25	270.14-270.29.
(a)	270.14.
(a)	(b).
(b)(1)	270.15.
(i)–(vi)	(a)–(d).

Old section	New section
(b)(2)	270.16.
(i)–(vi)	(a)–(f).
(b)(3)	270.17.
(i)–(ix)	(a)–(i).
(b)(4)	270.18.
(i)–(ix)	(a)–(i).
(b)(5)	270.19.
(i)–(iv)	(a)–(d).
(b)(6)	270.20.
(i)–(viii)	(a)–(h).
(b)(7)	270.21.
(i)–(ix)	(a)–(i).
(c)	270.14(c).
Permits by rule	
122.26	270.60.
Short term permits	
122.27	270.61–270.63.
Emergency permits	
(a)	270.61.
Hazardous waste incinerator permits	
(b)	270.62.
Permits for land treatment demonstrations	
(c)	270.63.
Additional conditions applicable to all RCRA permits	
122.28	270.30.
(b)	(j)(2).
(c)	(l)(2).
(d)	(l)(6).
(e)(1)–(3)	(l)(7)–(9).
Establishing RCRA permit conditions	
122.29	270.32(a)–(b).
Interim permits for UIC wells	
122.30	270.64.

RCRA PROGRAM

Old section	New section
Subpart A—General Program Requirements	
Retitled: Requirements for final authorization.	
Purpose and scope	
123.1	271.1.
(a)(2)–(4)	Removed.
(b)	Removed.
(c)–(k)	(b)–(i).
Note	Removed.
Definitions	
123.2	271.2.
Elements of a program submission	
123.3	271.5.
Program description	
123.4	271.6.
(f)	Removed.
(f)(1)–(3)	(f)–(h).
(f)(4)	Removed.
(g) and (h)	Removed.
Attorney General's statement	
123.5	271.7.
(c) and (d)	Removed.
Memorandum of agreement	
123.6	271.8.
(b)(1)	(b)(6).
(b)(2)	(b)(7).
(b)(3)	(b)(2).
(b)(4)	(b)(3).
(b)(5)	(b)(8).
(b)(6)	(b)(11).
(d)	Removed.
(d)(1)	(b)(4).
(d)(2)	(b)(5).
(d)(3)	(b)(9).
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